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# USSR Report

ECONOMIC AFFAIRS

No. 895



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## NEW STAGE IN ECONOMIC PLANNING, MANAGEMENT DESCRIBED

Moscow PLANOVVOYE KHOZYAYSTVO in Russian No 9, Sep 79 pp 37-44

[Article: "New Stage in Improvement of Planning and the Economic Mechanism"]

[Text] In accordance with the decisions of the 24th and 25th CPSU congresses and the provisions of the USSR Constitution, a system of planned management of the economy of mature socialism is consistently being perfected, as it is called upon to ensure the effective realization of the social and economic policy of the party and the state in all spheres of activity of the Soviet people. The decree of the CPSU Central Committee and the USSR Council of Ministers "On Improving Planning and Strengthening the Effect of the Economic Mechanism on Raising Production Efficiency and Work Quality" constitutes a new stage in the comprehensive perfecting of the economic mechanism. The basic goal of this decree is to raise the scientific level of planning and management.

The system of measures provided in the decree is aimed at strengthening the role of state plans, first of all the five-year plans, as the most important instrument in the realization of the party's economic policy and ensuring of a balanced economy; in orientation of plans toward the solution of major social problems; in concentration of resources and capital investments on the fulfillment of special-purpose programs; on improvement of the system of indicators; on raising labor productivity; on improving use of fixed capital; and of ensuring economy of all forms of resources. At the same time, the interconnection of long-range and current plans, of sectorial and territorial development and the orientation of plans toward more complete satisfaction of the requirements of the national economy and the population are being increased.

In the field of planning, provisions are made for: raising the scientific level of development of a system of interconnected long-range and current plans; strengthening the role of comprehensive programs for the solution of major scientific-technical, economic and social problems; ensuring an optimal combination of sectorial and territorial planning; improving balance and normative methods of planning; creating stable conditions for the operation of associations and enterprises.

Along with measures for improving centralized planning, there will be carried out further development of democratic principles in management, expansion of the creative initiative of labor collectives and the rights and functions of associations (enterprises) of ministries, councils of ministers of union republics and local soviets of people's deputies.

The complex of measures encompasses coordinated improvement of the systems of:

plans, balances, programs, indicators, norms and normatives;

economic ties, contractual relations, methods of assessing the results of operation and control of fulfillment;

planning and financing of capital investments and new equipment, improvement of their effectiveness;

cost accounting, economic levers and stimuli under conditions of an intensified role for five-year plans.

The accumulated experience of developing plans will permit going on to the establishment of a system of long-range and current plans that are intercoordinated with respect to aims, content and periods. The decree provides for a clear method of compilation and functioning of the system of plans, including:

a complex program of scientific-technical progress for 20 years (in five-year periods). The working out of this program to the year 2000 has basically been completed;

main directions of economic and social development of the USSR for 10 years (in five-year periods). In Gosplan SSSR, ministries and departments, work has been started on the compilation of a draft of basic directions to 1990;

five-year plans of economic and social development of the USSR with distribution of assignments by years. Work on the compilation of the five-year plan for 1981-1985 is entering its decisive stage;

annual plans implementing the assignments of the five-year plan for the pertinent year.

The complex program of scientific and technical progress and the main directions of economic and social development of the USSR for 10 years constitute a form of continuous planning. Every five years necessary refinements are incorporated in them with simultaneous development of most parameters for the new five-year period. Such an approach stems from the dynamic character of processes under conditions of the scientific-technical revolution. Five-year and annual plans are a stable part of the system of plans, making it possible to create conditions for the effective use of cost accounting, economic levers and stimuli.

The system of measures for the further development and improvement of planning has for its aim the revision of methods of management on the basis of stable indicators and norms of five-year plans as the main form of planned management of the economy and realization of the party's economic policy. This is primarily connected with improvement of the system of balances of material, labor and financial resources, balances of production capacities, monetary income and expenditures of the population, which will have to be developed for the long term and by years of the five-year plan rather than just for annual plans.

The stability of five-year plans is ensured by the rising level of their development and also through retention of the necessary stability of wholesale prices for the five-year period and the creation of material and financial reserves (and in necessary cases also of production capacities), gradually bringing them up to the sizes provided by approved norms. Of major significance for strengthening of the role of five-year plans in management will be economic norms approved for the years of the five-year plan, including wage and economic incentive funds and profit distribution.

The fulfillment of a five-year plan at all levels will be evaluated by a total growing from the beginning of the five-year plan and of an annual--by a total growing from the beginning of the year. At the same time, the interrelation of the five-year and annual plans will be strengthened; these will be developed not on the basis of especially established targets and control figures for a pertinent year but on the basis of targets and economic norms of the five-year plan for a given year with necessary concretization of them and development of measures providing for the fulfillment of the five-year plan.

In the development of five-year and annual plans, provision is made for wide-scale use of economic and engineering calculations and the data of the registration certificate of each association and enterprise. For this it is important to ensure in 1979-1980 the compilation of such certificates; they have to include data on the existence and level of employment of production capacities, including the equipment shift coefficient and the organizational and technical level and specialization of production and other technical-economic indicators required for compilation of plans.

The decree determines the system of approved indicators and economic norms of the five-year plan of economic and social development for industrial ministries, associations and enterprises.

Thus in the field of product production, the assignment is established for growth of net production (normative). The given indicator becomes a leading indicator in proportion to preparation for this sector. Commodity production in comparable figures is specific in separate sectors where a transition to net production would be impracticable for a number of objective conditions. In this part, indicators for growth of product production of the highest category or other indicators of quality are planned.

The approved indicators and norms for labor are supplemented with indicators and norms for social development at all levels from ministry to enterprise. They include growth of labor productivity for net production (normative) or some other indicator correctly showing changes in labor expenditures; wage norms per ruble of product; targets for reduction of use of manual labor; norms of formation of incentive funds. It was found advantageous to establish for associations and enterprises a limit to the number of workers and employees for the purpose of a greater planned character of distribution and use of labor resources.

As for financial indicators, here the new approach is characterized by the establishment of a general norm for distribution of profit and payments into the state budget and allocations from the budget by years of the five-year plan. At the same time, ministries bear the full responsibility for fulfillment of the plan for deductions from profit into the budget. In the case of its nonfulfillment the share of profit remaining at their disposal is correspondingly reduced. Such a system of profit distribution in the five-year plans is already being used by a number of ministries (Ministry of Heavy and Transport Machine Building, Ministry of Power Machine Building, Ministry of Tractor and Agricultural Machine Building, Ministry of Electrical Equipment Industry, Ministry of Instrument Making, Automation Equipment and Control Systems) and is gradually being introduced more widely into practice. In some sectors, an indicator of reduction of product production cost will be approved, with account being taken of concrete conditions in place of profit targets.

In capital construction, the role is being strengthened of an indicator of putting into operation of fixed capital and production capacities and facilities. In construction and installation organization first place is being respectively assumed by the indicators of putting into operation of production capacities and facilities and of the volume of commodity construction production.

A new factor is the establishment of a limit for state capital investments and in construction and installation work (including for technical reequipping and modernization of existing enterprises) for five years, which is not subject for reapproval in annual plans. The establishment of a limit in place of the total volume of capital investments radically alters the character of this indicator. The volume of capital investments was an assessing indicator; its employment frequently resulted in irrational use of resources for the sake of fulfillment of planned volumes of capital investments without reference to putting into operation of fixed capital, capacities and facilities. The limit is a resource indicator, characterizing the permissible size of outlays of capital investments on planned putting into operation and the operation of completed enterprises, capacities and facilities and the creation of normative reserves. Economy of resources in fulfillment of the planned volume of work serves as the chief criterion.



Most important indicators of the plan for introduction of new equipment are targets for the fulfillment of scientific-technical programs and raising of the technical level of production and quality of the most important types of produced products and also for economies resulting from the implementation of scientific-technical measures. Indicators of economic gains resulting from the development, production and introduction of new equipment and other measures of scientific-technical progress are being used for the first time as established ones.

In the development of annual plans individual indicators that have been established for a corresponding year of the five-year plan are concretized and refined. For industrial ministries targets are refined for the production of products expressed in physical terms (for a more comprehensive products list than used in the five-year plan), for putting into operation of fixed capital, production capacities and facilities and for payments into the state budget and allocations from it and volumes of deliveries of material-technical resources. Other indicators and norms are established by USSR industrial ministries in coordination with Gosplan SSSR and by republic ministries in cooperation with gosplans of union republics. A number of indicators are established independently by industrial ministries on the basis of targets or norms of the five-year plan for the corresponding year. The system of indicators and norms is differentiated for sectors of industry and the national economy with account being taken of their special features.

A different position is now occupied by the indicator of volume of sold products. It is worked out only in annual plans and is established for ministries, departments, associations and enterprises for assessment of fulfillment of targets of deliveries of products in accordance with concluded agreements and supply orders for products for export. In this role the indicator characterizes the end result of the work of an association (enterprise) and its fulfillment of commitments to a client for delivery of concrete items within set periods and with quality parameters satisfactory to buyers. In an assessment of the results of work and economic stimulation, nonfulfillment of deliveries in a products list (assortment) means nonfulfillment of the product sales plan and a corresponding reduction of money in incentive funds. This weakens the negative influence of the volume indicator in cost terms on the operation of enterprises, since it is now impossible to direct oneself to the production of more profitable or expensive products.

Measures are provided for the improvement of physical [natural'nyy] measurers in metallurgy, machine building and other sectors on the basis of wide-scale use of modern methods of determination of effectiveness, productivity, quality and other use properties of machinery, equipment and other products. Production of equipment keeps in mind planning of an expanded products list. Indicators expressed in tons will be used as calculating indicators in necessary cases.

For the purpose of given more attention to social problems, there is planned within the context of state plans of economic and social development of the country, union and autonomous republics, krays, oblasts, rayons and also of

ministries, departments, associations and enterprises the development of a free section for the entire complex of measures in the field of social development, including upgrading of qualifications and vocational skills of workers, the general and cultural level of the population, improving of work conditions, housing, cultural and everyday living conditions, medical services and other measures tied in to the development of production and growth of its efficiency.

Together with improvement of indicators in the complex of measures aimed at increasing scientific-technical progress and ensuring the organic unity of plans of development of science and technology with other sections of the plan of economic and social development, a significant role is given to expansion of program planning at all levels of management of scientific and technical progress, including development of programs for the solution of the most important scientific-technical problems and problems of complex use of natural resources and sectorial problems of technical equipment and modernization of associations and enterprises, specialization and concentration of production (they are compiled as plans for raising the technical level of sectors).

Measures are also provided whose purpose is not to permit the creation of new capacities for the output of products that do not meet present needs. Thus the planning and construction of new enterprises and the modernization of existing ones have to be carried out on the basis of highly efficient technology of production and the use of the latest equipment ensuring for the newly operative capacities the output of products which in their technical level and quality correspond to the best domestic and foreign models or are superior to them.

In order to shorten the cycles of planning and construction of new large enterprises and not to permit rapid obsolescence of created capacities, it is proposed to expand the experience of combining the period of planning with the period of construction and putting into operation of priority complexes and installations.

An important measure is going to be in 1979-1980 the conducting of an assessment of the technical level of manufactured machinery, equipment and other items of production designation. The obtained data will serve as the basis for planning the boosting of technical-economic indicators of manufactured and newly introduced items and the removal from production of obsolete products. It is planned to make such an assessment systematically.

A number of measures are aimed at the development of state certification of product quality and the development of comprehensive programs of standardization of products of technical designation and consumer goods, including original raw and other materials going into an item, as well as a systematic revision of obsolete standards and improved organization of control over product quality. All this will make it possible to achieve even more consistent comprehensive control of product quality.

At the 25th CPSU Congress, a sharper emphasis was made on the task of ensuring the necessary balance of plans. The development of a system of five-year balances and the creation of reserves are a most important conditions of its successful resolution. With this consideration in mind, the decree provides for the compilation of material balances (on the basis of an enlarged products list) and plans of distribution of resources among the main holders of capital by years of the five-year plan. Improvement of balance and linking of production plans with material resources on the level of each production association and enterprise is achieved on the basis of conclusion of five-year economic agreements between enterprises—product producers and user enterprises, as well as between industrial enterprises and trade, transport organizations and organizations of material-technical supply.

A system of measures was outlined for strengthening of direct economic ties, contractual relations, development of progressive forms of guaranteed supply of enterprises and construction organizations, expansion of a network of firm stores for the sale of consumer goods, better organization of wholesale markets and strengthening of plan and contractual discipline.

The provision of comprehensive development of union and autonomous republics and other regions requires new forms of combination of sectorial and territorial planning, improved arrangement of passing of plan information, making it possible to examine regional processes in the complex. With this consideration in mind, ways are provided for improving the territorial aspect of sectorial plans and ensuring their joint examination with the councils of ministers of union republics.

USSR ministries and departments provide councils of ministers of union republics with control figures and basic indicators for production associations, enterprises and organizations located in a given republic, while enterprises and organizations provide necessary data to kray, oblast and city planning commissions and gosplans of autonomous republics. The councils of ministers of union republics pass their proposals on the drafts of plans of associations, enterprises and organizations of union subordination to Gosplan SSSR and on plans of contracting work performed by union-republic ministries of these republics to Gosplan SSSR and appropriate USSR ministries where a thorough examination is carried out and they are coordinated with the proposals of USSR ministries and departments, with consideration being given to a fuller use of production potential and rational use of natural, labor and local resources, the creation of conditions of a comprehensive economic and social development of the republics. The working out and approval of consolidated five-year plans of production of local construction materials, and consumer goods and plans of housing, municipal and cultural-everyday construction and control over the fulfillment of the indicated plans are the prerogative of councils of ministers of union and autonomous republics and local soviets.

A special procedure for working out drafts of plans is provided for the territorial-production complexes of Siberia and the Far east.

The main directions of improvement of planning of capital construction are characterized by:

the development beginning with the 11th Five-Year Plan of stable five-year plans of capital investments balanced with resources of materials and equipment, ensured capacities of construction-installation and planning organizations, labor and financial resources and with consideration of the creation of necessary reserves;

ensuring of priority in the direction of capital investments, resources and equipment for the modernization and technical reequipping of existing production potential on the basis of the latest equipment and technology;

the restriction of construction of new and expansion of existing enterprises with conditions of full use of existing capacities and the goals of introducing into the national economy of the latest achievements in the field of technology and equipment of production. With this consideration in mind, lists of enterprises and structures whose construction is just beginning and of enterprises scheduled to be modernized and expanded are included in the five-year plans;

strengthening in planning and assessment of the operation and economic stimulation of construction-installation and planning-prospecting organizations of the role of indicators of end results of their operation and improved effectiveness of capital investments.

The most important approved indicators will be: putting into operation of production capacities and facilities, including growth of capacities because of technical reequipping and modernization of existing enterprises; growth of labor productivity; profit (for some organizations--reduction of production cost of construction and installation work); targets for introduction of new equipment.

In preparation to the preparation of a normative estimate basis for the 11th Five-Year plan, there will be increasingly used the indicator of net production (normative) or some other indicator that more accurately reflects changes in labor outlays when planning labor productivity in construction and installation organizations and norms of outlays per ruble of production in planning the wage fund.

Taking into consideration the described provisions, there should be completed in 1981 the introduction of settlements between client and contractor for totally completed construction of enterprises, priority complexes, sections and facilities that have been turned over for operation. Planning of production and deliveries of equipment and financing of capital investments are not restricted to the annual plan but are provided for the entire period of construction up to the time of putting the enterprises and complexes in operation. Credit of banks with use for these purposes of funds released by buyers in connection with a transition to settlements without intermediary payments is being preferred in the system of financing of capital construction.



The decree contains a broad complex of measures for the development of self-financing and strengthening of the role of economic levers and stimuli. The chief directions for improvement of the economic mechanism are going to be:

development of cost accounting on the basis of stable indicators and economic norms of the five-year plan, strengthening of the role of qualitative indicators for the assessment and stimulation of the cost-accounting part of management. The creation of large production associations expands the possibilities of economic maneuvering and development of cost accounting in the initial part of management of production and creates prerequisites for the formation of cost-accounting relations in the sector (ministry, department) as a big production-operation and scientific-production complex. In this connection, cost accounting in the operation of all-union (republic) industrial associations, scientific-production associations, scientific-research, planning-and-design and manufacturing organizations is carried out under conditions of a developing economic independence of production associations and clear-cut regulation of the functions of each part in a unified process of economic management;

the use in assessment of the operation and formation and use of economic incentive funds of qualitative indicators that characterize: satisfaction of the needs of customers (fulfillment of product deliveries according to contracts and supply orders); improvement of product quality (increasing production of products of the highest category of quality); growth of labor productivity; reduction of outlays of material resources and profit growth. With account being taken of special features of production, other qualitative indicators are also used.

Major importance is attached to the establishment of a system of economic norms, including the following norms: wage outlays per ruble of product; deductions from profit for economic incentive funds and the single fund for development of science and technology;

Payment for above-norm stocks of physical assets and uninstalled equipment obtained without the use of credit is made from profits left at the disposal of associations, enterprises and organizations. At the same time savings in regard to payment for funds (with fulfillment of plans of production and profit with a smaller value of funds than planned) remain at the disposal of associations, enterprises and organizations. Payments into the budget established by a ministry in the large for sectorial norms of distribution of profit are reduced by this sum.

Of major importance is strengthening of the role of economic levers and stimuli in improving product quality and speeding up assortment replacement of manufactured items. This is achieved through differentiation of the size of additions to the wholesale price of products bearing the Seal of Quality (depending on the annual economic effect and the technical level of the items).

A procedure is being established of planning and assessment of fulfillment of plan for product output with the Seal of Quality and the second category of quality in which markups and discounts are not provided in the plan but are taken into account in the record in assessing its fulfillment.

Provision is made for improvement of the system of use of fixed payments for highly profitable products of production designation and also a system for extension of credit for highly effective measures relating to output of new products, development of science and technology, raising quality of items, expanding production of consumer goods and so on.

For the purpose of improving the use of labor resources and stimulation of growth of labor productivity, an incentive procedure is being established for payment of increases to wage rates and salaries from savings of the wage fund; existing rates of payments into state social insurance are being raised; brigade forms of labor organization and stimulation are being developed.

Provision is also being made for increasing stimulation of production of products that use cheap types of materials (compared to those used in the national economy) and products with smaller labor intensiveness through retention of the level of wholesale prices and size of profit obtained from the sale of formerly produced products (which are now being replaced) to the end of the five-year plan.

There is being improved the system of bonuses for the development, production and introduction of new equipment and for ahead-of-schedule operation and use of capacities and also for wages in the case of increase in the share of work on technical reequipment and modernization of enterprises in the total volume of construction and installation work and in the case of observance of progressive technically substantiated norms.

Other measures are also provided for stimulation and improvement of quality of work and its end results. The practical use in the practice of planning and management of the adopted degree requires the working out of a number of methodical directives, instructions and norms and reflection in methodical documentations and in the forms and indicators of the plan of new positions and methods of planning and management. A large volume of work in this connection remains to be done by specialists of Gosplan SSSR and other organs.

For the indicated complex of measures to provide maximum results in the 11th Five-Year Plan, it is important that all new provisions stemming from the decree be realized in the shortest possible time so that they are included in the formation of plans, economic incentive funds and economic levers of the 11th Five-Year Plan.

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## GOSPLAN INSTITUTE DIRECTOR INTERVIEWED ON PLANNING DECREE

Moscow NEDEL'YA in Russian No 34 20-26 Aug 79 pp 6-7

[Interview with the director of the USSR Gosplan Economic Research Institute, V. N. Kirichenko, by A. Yevseyev: "For Everyone's Welfare"]

[Text] Reading a document such as the Decree by the CPSU Central Committee and the USSR Council of Ministers--entitled "On the Improvement of Planning and the Enhancement of the Influence of the Economic Mechanism on Increased Production Efficiency and Quality of Work"--one takes a pencil.... One rereads, thinks, and takes notes. A most important document for every one of us. For it is concerned with the quality of the lives of all of us, with the welfare of the entire nation, with our future.

And then, having read the last line, you catch yourself thinking: It would be good to talk to a specialist, an economist, to learn from him what caused a particular point to be included in the Decree, why it was decided to do this or that, and what this will do for the economy of the country. In short, there are questions. Thus there arose the idea to meet with Dr econ. V. N. Kirichenko, the director of the USSR Gosplan Economic Research Institute.

[Question] Vadim Nikitich, could you first of all answer this question: How is it that approximately two-thirds of the Decree are concerned one way or another with planning, with the organization of the planning work in the country?

[Answer] The planning principle has been and will remain the pivotal element for the growth of our economy, and as you know, the economy is developing rapidly; the connections between the individual sectors are becoming more complex; even the output produced by the sectors is becoming more complex; for example, in order to manufacture a product such as an automobile, it is necessary to coordinate the efforts of thousands of different enterprises. But you see, we do not live by motor vehicles alone--there are now billions of economic connections of every description. Of necessity, all this presupposes a different, higher organizational level of planning in the country.

Consider this fact. At present, the industrial output of the Soviet Union equals the world industrial output of 1950! Just imagine our present economic potential! Naturally, our economic strategy is changing. And today one of our principal tasks is this: Most efficiently to utilize our gigantic potential on the level of production units such as the enterprise, the association, the sector. You probably know that we are producing more tractors than the United States. And more steel as well. And also more mineral fertilizer. And if one projects this large figure to the unit of agricultural output, it turns out that in our country this index is 1.4 times as high as in the United States. As for tractors, our production per unit of agricultural output is even 1.5 times as large. Our output of cement--per unit of capital investments--is 1.6 times as large.... In short, you can see yourself: We have scaled up our production, and presently the following problem is confronting us in all its magnitude: More efficiently to utilize the total production potential. We are switching the economy to the intensification track, that is we are making this demand: To utilize more intensively and more efficiently human labor, the technical resources, and the product obtained as a result of the manufacturing process. In keeping with this new strategy, there must be a new level of planning.

Please note that 10 years ago we did not talk about this with such urgency; at that time, this problem was not yet as acute. But today, in expanding production, we cannot count on a rapid increase in human resources, especially in the European parts of the country, and we must look for a way of utilizing these resources more efficiently. Add to this the ever-increasing importance of scientific-technological progress for the development of the economy and also factors such as foreign trade relations, the problems in regard to protecting our environment--factors that previously were not always taken into consideration and that today must be taken into account--and you yourself will conclude that such a basic document is necessary. You see, the plan is the main lever, the principal means of implementing the party's economic policy.

[Question] In that case, let me ask you a question that ensues from what you just said: What new measures does the Decree map out in regard to raising the level of planning? What is new in the planning strategy?

[Answer] A great deal is new. Let's start by pointing out that for the first time a well-composed planning system has been set forth in a basic document--a long-range, long-term plan, a five-year plan, an annual plan. And this is precisely the system, a chain of clearly interrelated plans with its own inner logic and dynamics of development. Further, the organic link of the plan with the achievements of science and technology, with advanced know-how, is being strengthened; the plan has been more precisely oriented toward the solution of social problems. Provision has been made for forms and methods of concentrating efforts and resources on certain trends of economic and social life--I mean the development of special complex programs.... I would like to draw the reader's attention also to a different, more objective approach to the enterprises' real contribution to the solution of economic problems, to the



satisfaction of our economic requirements--I am referring to a new system of indicators which have been established to guide the factories toward that level of work which society today expects of them; and finally I would like to draw attention to that system of measures, which aims at raising the enterprises' responsibility and their interest in more efficient, high-quality work.

But you are also asking what is new in regard to the planning strategy--a complex question. Well, first of all let us note the following: The strategic approach is the same approach that we have been following since the 23rd CPSU Congress. The Decree is putting into effect the ideas formulated at the last three party congresses. Subsequently, long-term economic experiments have been conducted. These experiments have now been concluded; the best has been selected and has been given official status in this document. It has been legalized and has consequently become customary for all. As regards the complex program of scientific-technological progress, the situation is the same: After 5 years of experimental work with a draft, the program is becoming part of the planning system. Just like the special programs. Practical instances of such programs have been known for some time, e.g. the opening up of virgin land or the development of nuclear energetics. As you can see, the Decree embodies the rich economic experience of the last few years. It also takes into consideration the experience gained by our friends in the socialist countries.

Tested principles of planning such as the "special-purpose orientation" are being strengthened. I will explain what I am referring to: The principal objective is clearly singled out and the plan is, as it were, "marshaled" under it. For example, the primary objective of every one of our five-year plans has been to raise the standard of living, to solve the social problems. It is precisely to this objective that all the other problems are subordinated, the problems which we will be solving in this and in the following five-year plans, each of which is a distinctive logical link in the implementation of these special objectives....

[Question] One more question: What is the reason for the necessity, as formulated by the Decree, "to stipulate in the plans outlining the basic trends of economic and social development variant solutions to the big economic and social problems"?

[Answer] The search for optimal, most efficient solutions always entails an analysis of a number of variants and the selection of one of them. The possibility of selecting one of several variants is a boon for the economist just as it is a boon for a general making a strategic decision. There was a time when we could not allow ourselves a "luxury" such as the selection of the optimal way of solving the big economic and social problems--there was simply nothing to choose from; but today the technical, economic and social potential allows us to do this. Let's take the energy problem: As is well known, the oil reserves will not last forever and they are smaller than the coal reserves. The question is on what raw material should we base energetics in the future? On coal? Gas? Oil? Nuclear power? Water resources? You

see, what a choice of variants! And if one starts to concretize them--what is the best? Here there arise "subvariants": What is better--hauling the coal from the extremely rich coal fields under Krasnoyarsk or Ekibastuz to the center of the country and converting it there into energy or burning the coal in the furnaces of high-capacity heat and power stations that could be established in those regions? Or should one perhaps not burn the coal, but establish special chemical works which would enable us to obtain synthetic fuel from the coal? In short, as you can see, there is a lot to think about, to "compute" as the economists say. And as a result one picks the variant that under the given conditions is the most advantageous.

[Question] Tell us, now that our industry produces 12 million different articles, now that the number of economic connections in the organism of our country's economy runs into billions, as we already pointed out; and now that it has become impossible simply to memorize all these connections--how can one operate with them, how can they be coordinated?

[Answer] How? The computers will help us. But that is not the point--why should we store them in computer memory banks or operate with them? Tell me, why should all the smallest details of our economic connections be decided at the top? For example, is it necessary to decide in Moscow how many nails such-and-such an enterprise on the rayon level should produce? The spirit of the Decree, its very objective is clearly to define the sphere of responsibility of each level of planning and management and to extend the independence of the subordinate production units in the solution of their economic and production problems.

[Question] Reading the Decree, one notices the following: "Gross production" disappeared from the list of key plan indicators. In its place, there have appeared new indicators--"net production", "wage norm per ruble of output", "volume of construction output." What are the reasons underlying this? And what became of "gross production volume"--did it really disappear?

[Answer] Not entirely. For those economists who calculate the dynamics of production and of the interconnection between the sectors, the gross indicator is necessary. It is necessary as well for calculating the balances. You see--twice I said: "For calculation." "Gross production volume" is an indicator for a particular calculation; it does not determine parameters such as the quality or efficiency of the enterprise's work.

These parameters can be "measured" by other indicators, above all by net production (standardized). In itself, the term "net production" was introduced by Marx and, in broad terms, it only denotes newly created value. As far as the indicator is concerned, it likewise has been part of economics for some time: For several years, experiments have been conducted with the object of examining how it operates in practice. Now that approximately 1,000 enterprises in the country have switched to "net production" it has become clear where it is useful and where it must be replaced or altered to some extent. The economic rationale of the new indicator lies in the fact

that it reflects the true contribution of a given enterprise to the manufacture of a certain product; in contrast to "gross production," it does not take into account the cost of raw materials or complementary articles, i.e. of all that which is the result of the work of other enterprises. Consequently, by using this indicator, we can obtain a more accurate idea of how matters stand in regard to the productivity of labor in a given enterprise--for this indicator is not distorted by those labor expenditures which entered production at preceding stages. For example, an automotive plant receives from other enterprises the engine, electrical equipment, and instruments, while the plant itself manufactures the body and the axles and carries out the assembly of the motor vehicles. Naturally, with the old, "gross production" indicator, which summed up all of the costs incurred in the production of the automobile, we would receive a distorted picture of how matters stand in that enterprise in regard to labor productivity. As regards "net production," things are different--now only those labor costs are fixed, which are incurred in the enterprise in question. Thus "net production" shows us how efficiently a most important production resource such as human labor is utilized. "Net production" orients the enterprises not toward increased production costs, but toward increased labor productivity and efficiency--just like the "surplus value" norm which has been established for many enterprises belonging to group "B" and which essentially is a special equivalent of the "net production" norm.

The following indicator--the "norm of wages per ruble of output"--will help correctly to organize the wage fund in accordance with the enterprise collective's real contribution to the production of goods. For this purpose, appropriate norms will be worked out, which will determine the share of wages in the production costs. This will allow us to regulate the wage fund in strict conformity with the collective's production results.

The builders will soon become acquainted with a device measuring their work, namely the "volume of construction output" indicator. Put differently, this is the cost of construction and installation work at projects delivered to the client. I want to emphasize--that is projects that are delivered, completed, finished. That is the point: The new indicator permits a more objective evaluation of the builders' work.

[Question] There is one more new term one notices in reading the Decree--the "enterprise passport." What is that?

[Answer] That is a detailed description of the enterprise's production potential. This document must contain information about all of the enterprise's production capacities and about how they should be utilized; about the direction of production specialization and about the shift coefficient. The enterprise passport forms the basis of economic and technical calculations in the formulation of the annual and five-year plans for associations and enterprises.

[Question] And "through the accumulating total"--you remember that passage of the Decree that is concerned with how to evaluate the fulfillment of the plans? "To evaluate ... through the accumulated total from the beginning of the five-year plan"--what does this mean?

[Answer] It means only one thing: If, for example, an enterprise did not fulfill the plan for the second or third year of the five-year plan, then you must every effort fully to carry out that five-year plan set up for you; your "debts" are not going to be written off and if you work badly, the debts naturally will increase. Precisely the same principle is implemented in regard to the annual plans; the only difference is that here the reference is to quarters and months.

[Question] Even now, it is quite clear that the plans of the future five-year plans will differ from the present five-year plan, not only by virtue of different figures, but also on account of the "directions of main thrust" that formerly were not part of the plans. For example, the plan will include, as we learned from the Decree, special complex programs. And included among the top-priority programs will be programs concerned with fuel and metal economies, with the development of the BAM zone, with curtailing the use of manual labor, with increasing the production of consumer goods ... Tell us, what are the reasons underlying these thrusts of the top-priority programs?

[Answer] Answering your question, I will follow the order in which these programs are listed in the Decree. So I will start with the fuel and metal economy ... We are the only country in the world, the only country among the major developed countries, that has its own natural raw material sources--fuel, ores, timber, water, etc. But at the same time, the demand for raw materials is growing rapidly and their exploitation is still to a large extent bound up with the opening up of almost inaccessible regions in the east and north and with increasing transportation costs. At the same time, we are intolerably wasteful in using these most valuable (I could say: increasingly valuable) resources. For example, in the machine building of the metal processed is wasted. And you see, on this problem--whether or not there will be metal--depends the solution of many economic problems: If there is not enough metal, there will not be enough machines. Insufficient metal--and capital construction will decline.

These are all elementary truths, but sometimes it is useful to remember them. And here science and practical experience have convincingly proved that under the present conditions it is better to bank on a more efficient and economical use of raw materials--of fuel and metal--than on a quantitative increase in their production. Put differently, one can supply the country with a supplementary--and quite large--quantity of metal, without extracting any metal from the earth, but simply by utilizing it more carefully. And it is not only the machine builders who can and must save metal. Whether there will be more or less steel depends specifically on the quality of the work of the metallurgists; they can reduce the metal waste in the so-called "reprocessing operations," i.e., the processes in which cast iron is converted into steel, and steel into rolled metal. It also depends on the work of the technologists in the machine building sectors; they are called upon to introduce more economical methods of metal processing. It also depends on the designers; in their plans, they must make greater use of nonmetallic materials. As you can see, the problem can be solved only through a complex approach, through enlisting the services of specialists of the most diverse sectors and enterprises. And that is precisely



why programs like this are set up as complex programs.

The second of the programs named--more precisely, BAM--is concerned with the development of the economic impact zone of this most important main highway. This zone is a major source of raw materials, first and foremost of coal; incidentally, coal (the famous Neryungri coking coal) is already being hauled on this new highway from South Yakutia. Here there are all kinds of ore and the most abundant timber reserves. The opening up of all these resources will be an important contribution to the country's economic potential.

Why has there been established a special program aimed at reducing the use of manual labor? First of all, because this is a major resource for increasing the national productivity of labor and secondly, because it is an important social problem. I could even say: Behind "manual labor," there are hidden some social problems which we have begun to feel quite acutely. You see, in our country there are "nonprestigious" occupations such as loader or office-cleaner. In the view of the public, these occupations have a certain "inferior quality," since they require manual labor and only few skills. We do not see any great rush of people wanting to dedicate themselves to these occupations: Having received a secondary education, the young people of today go only reluctantly into those fields of work, where there are only "bare muscles," but no machines. And those who presently do such work will soon retire ... As has already been mentioned, due to the objective demographic situation, the natural flow of human resources is declining and will continue to decline for some time. Consequently, we cannot entertain any special hopes that the number of people prepared to do this kind of work will increase.

Another social aspect of this program: As is generally known, reducing the use of manual labor is a way of eliminating the difference between intellectual and physical work. But there is another reason why this program should be included among the top-priority programs: It should become a law of our economy to stabilize, to restrict the number of hands employed in production, while at the same time increasing the output of goods. There is only one way of achieving this: By introducing machines in those fields that still make use of human labor.

Well, finally, there is the program aimed at increasing the production of goods. What could one say about it? This is the real embodiment of the central problem of all our plans--constantly to raise the living standard of the population. Here I would like to draw attention to another aspect of the complex programs--to their purely psychological importance: They break the psychological tendencies present in the economy, in production and in society--certain habitual, but obviously outdated views. For example, some managers have almost become accustomed to regarding the production of goods for mass consumption a "second-rate" matter. Now that new commodities will be part of the state program they will have to think about how to bring these goods up to world standards.

[Question] When will all these things that we have been discussing be implemented?

[Answer] Some are already being implemented and some will be carried out in the near future. The work to be done is extensive and complex; at the same time, it must neither be rushed nor delayed. It is important that even now the work collectives focus their attention on those key positions of the new document, which are expressed in two words: Efficiency and quality. This is what presently is most important for our economy; this is what every line of the new document directs us to.

A great many of the Decree's provisions will be reflected in the plans for 1980. And in the new five-year plan, we will have to work in a new way!

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## METHODOLOGY OF PLANNING REGIONAL-INDUSTRIAL COMPLEXES SCRUTINIZED

Moscow PLANOVYE KHOZYAYSTVO in Russian No 9, Sep 79 pp 86-90

[Article by V. Savel'yev, deputy director of Central Economics Scientific-Research Institute attached to Gosplan RSFSR, and B. Shtul'berg, head of section of Central Economics Scientific-Research Institute attached to Gosplan RSFSR: "Methodological Questions of Planning of Regional-Industrial Complexes"\*)]

[Text] Ensuring planned and harmonious development of multisectorial regional-industrial complexes is an important task for whose solution the existing practice of planning is frequently found inadequate. As a result adherence to construction schedules and synchronism of putting interrelated facilities in operation, the creation of a single complex of production and social infrastructure on the territory of regional-industrial complexes and the requisite degree of lead by the latter are not always provided; natural, labor, material and financial resources are not being used naturally. Such deficiencies were revealed in the forming of Ust'-Ilimskiy, Bratskiy, Timano-Pechorskiy and other regional-industrial complexes.

The need for overcoming the said defects and ensuring the coordinated operation of different ministries and departments was pointed out at the 25th party congress. General Secretary of the CPSU Central Committee L.I. Brezhnev emphasized "that the question of improving methods of comprehensive solution of large statewide intersectorial and territorial problems has come to a head. It calls for unified, centralized programs encompassing all the work stages--from planning to practical realization. It is important that in each case there be specific organs and specific people with full responsibility coordinating all efforts within the framework of this or that program."<sup>1</sup>

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\*This article basically describes the design of methodological recommendations for the planning of regional-industrial complexes prepared by the Central Economics Scientific-Research Institute under Gosplan RSFSR in conformity to the coordination plan of scientific research approved by Gosplan SSSR. The article is published for purposes of discussion.

1. "Materialy XXV s"yezda KPSS" [Materials of the 25th CPSU Congress]. Moscow, Politizdat, 1978, p 61.

## Regional-Industrial Complexes as the Object of Centralized Planning

The Soviet theory of economic regionalization brought out many decades ago the concept of the regional-industrial complex as an economic interdependent combination of enterprises at a single industrial point and in a whole region; this results in a specific economic effect stemming from the planned selection of enterprises in accordance with the natural and economic conditions of the region. Such a combination of production installations interacting with each other and with the rest of the national economy was considered as an economic nucleus of regions of all ranks and has become the basis of the system of regionalization that is in operation at the present time.

At the same time there are regional-industrial complexes that are newly created or are rapidly changing their structure. They are exerting the biggest influence on modification of the regional structure of the national economy and as a rule extend beyond the boundaries of existing oblasts and economic regions. A number of ministries and departments of union affiliation usually participate in the formation of such complexes. The plans of ministries, however, are not adopted for the solution of problems of intersectorial character that are basic to the creation of complexes. The plans that are worked out for oblasts and economic regions likewise do not regulate the process of establishment of regional-industrial complexes. In this connection, the successful solution of problems of formation of complexes requires the realization of their centralized planning. In particular the decree of the CPSU Central Committee and the USSR Council of Ministers "On Improving Planning and Strengthening the Influence of the Economic Mechanism for Raising Efficiency and Quality of Work" provides for the development of programs of development of regional industrial complexes as one of the most important composite parts of state long-range plans of economic and social development.

Among regional-industrial complexes subject to inclusion in the system of national-economic planning are the Timano-Pechorskiy, Kursk Magnetic Anomaly, North-Western Siberia, Kansk-Achinsk Coal Basin, Saynskiy, Yuzhno-Yakutskiy, Pavlodar, Ekibastuzskiy and Yuzhno-Tadzhikskiy. All of them have a number of common features: they are formed for the solution of one or several problems of all-union importance; they included interrelated production facilities of different ministries and departments; they are based on the use of most large sources of natural resources; they are characterized by a high level of concentration of investment processes on the territory; they are in the stage of formation, that is, of construction of fixed production capacities and creation of an infrastructure.

The regional-industrial complex is a complex entity that can consist of tens of enterprises of different ministries, territorially disconnected industrial centers and residential centers.

The basis of regional-industrial complexes consists of specialized and auxiliary enterprises that directly perform special-purpose functions of the complex, as well as supplementing their production for the complex utilization of minerals and waste. A complex likewise includes a production and social infrastructure, a construction base providing for its formation and functioning.

The approach to the planning of a regional-industrial complex depends on where it is formed--in newly developed regions or economically developed territory. If a regional-industrial complex is created in newly developed regions, the plan would have to include all enterprises being built on the territory of the complex inasmuch they all must be interrelated. In the forming of a regional-industrial complex in economically developed regions, the plan should include only specialized enterprises and those which actively interact with them.

Problems of development of transport and material-technical supply water- and power-supply installations should be considered both as a whole for the complex and for individual industrial centers (cities) included in its composition. Plans for a regional-industrial complex located in newly developed regions include all objects of the production infrastructure created on the territory of the regional-industrial complex. If the complex is being formed in an economically developed region, the plan should include only those facilities that are directly involved in servicing of enterprises constituting the nucleus of the regional-industrial complex.

The development of a social infrastructure in newly developed regions should be planned for the entire territory of the regional-industrial complex and in developed regions--for cities where enterprises included in the complex are concentrated. It is not enough to plan the construction of facilities belonging to the service sphere only along departmental lines. We know that attempts to provide for the manpower requirements of enterprises that are being built through the creation near each one of them a housing fund, kindergartens, trade organizations and other facilities of the service sphere make difficult the planned formation and comprehensive development of cities, result in additional outlays on the territory's engineering equipment and extended time of construction, which has a negative effect on the operation of enterprises belonging to the regional-industrial complex.

Taking into consideration what has been said, planning of the development of the service sphere for the population is feasible on the whole for residential centers located in the region of establishment of the regional-industrial complex. For cities and worker settlements being built in connection with the creation of the regional-industrial complex, financial and material resources for the formation of a service sphere could be advantageously turned over to the Ispolkom or one of the main builder ministries. If industrial enterprises of the regional-industrial complex are being built in a large city, capital investments for facilities of nonproduction designation can be issued to a pertinent ministry on the basis of a need of providing the standard level of services for the city. At the same time, the plan of the ministry has to indicate for what city the capital investments are designated. It would also be useful to include in the regional-industrial complexes being established in newly developed regions agricultural enterprises of the near-city type, located on the territory of the regional-industrial complexes and specializing in the production of vegetables and animal-husbandry products.

In an examination of the construction base of regional-industrial complexes, construction-installation organizations, enterprises for the production of



of construction materials and constructions and also planning-prospecting operations should be the subject of planning. Plans for the creation of regional-industrial complexes in newly developed regions should provide for the development of the capacities of all construction-installation organizations located on the territories of the complexes. Plans for other regional-industrial complexes ought to include only those construction organizations which are primarily engaged in the construction of facilities that are going to form part of the complex.

The development of a construction base for regional-industrial complexes in newly developed regions ensured both through the construction on the territory of a complex enterprises for the production of construction materials and constructions, bases for supplying construction and also through deliveries of corresponding products from the side. In the latter case, the plan for regional-industrial complexes could include enterprises of the construction industry located outside the limits of the complex but primarily created for the satisfaction of its requirements for construction materials and constructions. Such situations are typical in the formation of complexes in regions of the Far North.

In planning of a construction base for regional-industrial complexes located in economically developed regions provision is made for the satisfaction of requirements for construction materials and constructions through better use of capacities of existing enterprises. Only with the existence in the region of a deficit of these or those types of products would it be useful to provide for the creation of new construction-industry facilities in the plan for the regional-industrial complex.

The state plan for all regional-industrial complexes should allocate material, financial, natural and labor resources in conformity to the targets for the construction of a complex and production of products by enterprises included in it.

#### Tasks of Planning the Formation of Regional-Industrial Complexes

In the process of planning the formation of regional-industrial complexes, the following tasks should be resolved:

validation of the scale of development and structure of regional-industrial complexes, the composition of enterprises and objects of the infrastructure and also the sequence of their construction;

determination of the scale, composition and order of development of the construction base;

satisfaction of the requirements of the enterprises of a complex and construction organizations in regard to labor resources and the development of the service sphere for the population to a level ensuring attracting and securing of worker cadres;

timely satisfaction of the requirements of regional-industrial complexes for natural, material and financial resources and ensuring their effective use;

cooperation of the operation of ministries and departments taking part in the creation of regional-industrial complexes for the purpose of synchronously putting in operation interrelated facilities, timely development of a unified production and social infrastructure and also ensuring of economically advantageous ties between enterprises of the complex.

The resolution of the enumerated tasks requires the development of long-range programs for the creation of regional-industrial complexes, general plans of construction of complexes, main directions of their development and five-year and annual plans for their formation.

The designation of a long-range program for the creation of regional-industrial complexes covering 20-30 years provides scientific substantiation of the purposes for the formation of a complex, determines its structure, production volume and resources required for this (in general terms for the long range and in more detail for the immediate five-year periods).

The general plan of construction of regional-industrial complexes is compiled for 15-20 years on the basis of a long-range program. It provides the basis for the location of industrial centers and individual enterprises and facilities of the production and social infrastructure and outlines the system of settlement and measures for the conservation of nature.

The basic directions of development of regional-industrial complexes are provided for 10 years on the basis of the long-range program and the general plan of the regional-industrial complexes. The tasks of the corresponding document include determination of the volume of product output, the title list and order of construction of production enterprises and also the scale of nonproduction construction while taking into account the requirements of the national economy for products for the production of which a complex specializes and the size of resources which will be allocated for the formation of the complex in a plan period.

In five-year and annual plans for the formation of regional-industrial complexes, targets for production and construction are worked out in greater detail with refinement of their territorial and departmental place, times for putting in operation of interrelated installations and determination of the sources for covering the needs for different kinds of resources.

All the stages of validation, projection and planning of the formation of regional-industrial complexes should be interconnected. This requires the establishment of general methodological and organizational bases for the entire process of planning of regional-industrial complexes.

Long range programs for the creation of regional-industrial complexes should be worked out by scientific organizations attached to Gosplan SSSR jointly

with institutes of the USSR Academy of Sciences, ministries and departments on the basis of the list of regional-industrial complexes approved by Gosplan SSSR. Following approval by Gosplan SSSR, the long-range programs serve as the basis for doing work on the compilation of general plans of complexes that are made by territorial institutes of Gosstroy SSSR together with planning institutes of ministries and departments and enterprises that should be part of the complexes.

While the formation of regional-industrial complexes is provided for in the basic directions of economic and social development of the USSR, which testifies to the transition from research and substantiation directly to planning of the creation of this complex. The basic directions of development of regional-industrial complexes are developed by Gosplan SSSR, gosplans of union republics, ministries and departments jointly with corresponding institutes. In the developmental process of the basic directions of development of regional-industrial complexes, indicators of the special-purpose program and of the general plan undergo changes in connection with the fact that at this stage the possibility appears of taking into account more accurately the requirements of the national economy for products of a regional-industrial complex and determining the size of resources that can be allocated in a plan period for its construction. This results in the necessity for correction of both special-purpose programs and general plans of regional-industrial complexes following approval of the basic directions of USSR economic and social development. Inasmuch as the basic directions for 10 years are to be worked out before the start of each five-year plan, the correction of the aforesaid documents for regional-industrial complexes included in the state plan of economic and social development also should be done once in five years.

Five-year and annual plans must be developed for regional-industrial complexes included in the basic directions. With this purpose in mind there should be set aside in the plan of the economic and social development of the country special sections for regional-industrial complexes worked up by Gosplan SSSR together with USSR ministries (departments) and the council of ministers of the pertinent union republic. Together with this, it would be advantageous to provide sections for regional-industrial complexes in the plans of USSR economic regions.

#### Composition of a Plan for the Formation of a Regional-Industrial Complex

In our opinion, on the basis of the tasks of planning the formation of regional-industrial complexes, it would be practicable to include in the plan five sections providing for: specialized and directly related to them production installations; the production infrastructure; the social infrastructure; a construction base; resource provisions for the regional-industrial complex; capital construction.

In the first section, the chief role will be played by indicators of product production in physical terms and putting into operation of production capacities. The list of types of products on which planning will be carried out for each complex will be determined according to its specialization and production structure.



The second section includes indicators of putting into operation transport communications, communications enterprises, capacities for the production of electric and thermal power, power lines and heating routes, water and sewer mains and other objects of the infrastructure serving the entire complex or providing local value. It would be advantageous to plan the latter on the basis of residential centers while providing for the needs of production and the population with regard to heat, power and water, sewerage operation, communications services and the like.

The development of the social infrastructure should also be planned not only for the regional-production complex as a whole but also for cities.

Two groups of indicators should be singled out in the section on planning of a construction base. The first group includes indicators characterizing the planned volume of construction-installation work performed by contracting organizations according to types of construction, the number of workers required for accomplishing this, capital investments allocated to these organizations for production needs and cultural-everyday construction, putting into operation of equipping bases and material-supply bases for construction. The second group of indicators characterizes putting into operation capacities for the production of construction materials, parts and constructions.

The section of resource provision for a regional-industrial complex includes indicators of state capital investments and of deliveries of equipment, raw and other materials. Capital investments (construction-installation work) of production designation are distributed to basic facilities and of a nonproduction character--to residential centers. In the planning of provision of a regional-industrial complex with labor resources, there should be developed indicators of the number of workers (for each industrial enterprise and construction organization), additional need for cadres and sources of its satisfaction from local resources and organizational collection of workers.

The use of natural resources is planned for mineral and raw-material, water, land and timber resources.

For the provision of enterprises of the complex with material resources, deliveries are planned of the most important types of equipment, construction materials, parts and constructions, basic forms of raw materials and fuel. The products list of equipment and raw and other materials will be changed on the basis of the specialization of complexes. The plan provides for production ties among enterprises of the complex and also deliveries from the side.

In the development of the resource section of the plan, special attention should be given to providing the complex with deficit resources. Their listing depends both on the region of location and on the specialization of a regional-industrial complex.

The section of the plan for capital construction includes title lists of newly planned and carry-over construction projects, as well as the volume of construction-installation work. It should be based on a network schedule

of construction of the main installations of the regional-industrial complex, establishing of time limits for putting production capacities and objects of the infrastructure into operation.

The planned formation of a regional-industrial complex requires precise regulation of the process of planning, determination of the functions of different control organs in this process. The following planning procedure can be proposed.

Five-year and annual plans for the formation of a regional-industrial complex are worked out by Gosplan SSSR, councils of ministers of union republics, ministries and departments. Gosplan SSSR, on the basis of the approved basic directions of USSR economic and social development, determines the control figures of development of the regional-industrial center and determines the basic directions for the production of products and capital construction among USSR ministries and departments participating in the formation of the complex and the council of ministers of the corresponding union republic.

Ministries and departments approve drafts of plans of enterprises included in the regional-industrial complex. They designate measures for fulfillment of the control figures of Gosplan SSSR and determine demands on related installations and the need for resources. The drafts of the plans are presented to Gosplan SSSR and also to the council of ministers of the union republic which prepares proposals for the draft of the plan of development of the production and social infrastructure, reproduction of natural resources and protection of nature and development of a construction base on the territory of the regional-industrial complex. These proposals, tied in to control figures, are presented to Gosplan SSSR where a draft of the consolidated plan for the development of the regional-industrial complex (included as an independent section in the state plan of economic and social development of the USSR) is compiled.

After analysis of the indicators of the draft of the plan and carrying out of balance calculations, Gosplan SSSR together with the council of ministers of the union republic and USSR ministries and departments works on improving the draft of the consolidated plan for the regional-industrial complex and drafts of plans of enterprises included in it of different departmental jurisdiction. The refined indicators for the regional-industrial complex are approved within the framework of the state plan of economic and social development of the USSR and of state plans of economic and social development of union republics and then go to the proper ministries and departments.

The councils of ministers of union republics participate directly in the forming of the indicators of the consolidated plan for development of the regional-industrial complex (for labor resources, construction base, production and social infrastructure, rational use of natural resources and protection of the environment) and bear the responsibility of providing for the enterprises worker cadres, construction materials and constructions and for raising the level of life and services for the population. In the working

out of appropriate indicators for the plan, there should participate in addition to republic committees and ministries councils of ministers of autonomous republics, kray and oblast ispal'koms on the territory on which regional-industrial complexes are being formed.

Ministries and departments participate in the development of drafts of plans of ministries that are within their jurisdiction and included in the regional-industrial complex and also in the realization of these plans. The system of plan indicators presented by the ministries and departments for these enterprises has to be distinguished from the territorial forms of sectorial plans existing at the present time. In particular, there should be additionally developed indicators of need for electric power and fuel, for basic types of manufacturing equipment, transport and construction machines and so on. Close interaction of Gosplan SSSR, the councils of ministers of union republics and ministries and departments should ensure the fulfillment of all work required for inclusion of plans for the formation of regional-industrial complexes in the system of state planning and interrelation with sectorial and territorial plans. For strengthening of this connection, indicators for regional-industrial complexes should be included not only in republic but also in other territorial plans. Corresponding sections in particular should be in the plan of development of the economic region and comprehensive plans for those oblasts (krays, ASSR) on whose territories the planned regional-industrial center will be completely or partially located.

Taking into consideration the large additional volume of work on substantiation, projection and planning of the formation of a regional-industrial complex, it will be necessary to solve a number of organizational problems, to create in particular in Gosplan SSSR and Gosplan RSFSR subdivisions for planning of regional-industrial complexes, to create planning commissions locally within administrations for the construction of regional-industrial complexes and so on.

For ensuring control over the course of fulfillment of plan targets and effective solution of problems arising locally in the course of construction of a complex, an administration should be organized for the construction of the regional-industrial complex; supervision of this administration can be given to a plenipotentiary of the USSR Council of Ministers. The basis of his apparatus could be the managements of construction enterprises. For the time of construction of the complex, an administration of the regional-industrial complex should have control over the operation of all construction organizations and enterprises of the construction industry. The administration should participate in compilation of the sections of the plan of the regional-industrial complex for the development of a construction base and capital construction, be accountable for the timely and qualitative fulfillment of construction of the complex, manage objects of the infrastructure within its jurisdiction. After basic completion of construction of the complex, it will be possible to disband the administration and turn over objects of the infrastructure to the jurisdiction of local soviets.

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## RSFSR ECONOMIC GROWTH REVIEWED

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[Article by Candidate Member of the Politburo of the CPSU Central Committee and Chairman of the RSFSR Council of Ministers M. Solomentsev: "Soviet Russia: Factors of Economic Growth"]

[Text] The workers of the RSFSR, who are closely united around the fighting vanguard of the Soviet people--the Communist Party, are working unremittingly on the realization of the plans of the 10th Five-Year Plan. Special attention of the labor collectives, the workers of production and services, planning and management is being devoted to the utilization of the intensive factors of economic growth, which at the stage of developed socialism play a primary role in multiplying the wealth of our country and consolidating the positions of the socialist system on the world arena.

The policy of the utmost increase of the efficiency of social production, the stepping up of its intensification and the more complete utilization of the advantages of the planned socialist economic system in integral connection with the achievements of the scientific and technical revolution received concentrated and clear expression in the economic strategy of the party, which was elaborated in the decisions of its 24th and 25th congresses and in the works of General Secretary of the CPSU Central Committee and Chairman of the Presidium of the USSR Supreme Soviet L. I. Brezhnev.

In the recently adopted decree of the CPSU Central Committee and the USSR Council of Ministers, "On the Improvement of Planning and the Intensification of the Influence of the Economic Mechanism on the Increase of Production Efficiency and Work Quality," it is emphasized: the problem is to raise the level of planning and management, to bring them in line with the current stage--the stage of developed socialism, to achieve a significant increase of the efficiency of social production, the acceleration of scientific and technical progress and the increase of labor productivity, the improvement of product quality and on this basis to ensure the steady improvement of the economy and the well-being of the Soviet people.

The introduction in production of advanced technology and the achievements of science, the complete loading of the production potential, the rational



organization of work--all levers are being set into motion for the purposes of the intensive development of the economy. The success in this important state matter is governed by the creative efforts of millions of people, the concerted actions of labor collectives, the coordination of all the sectorial and territorial links, which make up the mighty national economic complex of the country.

Soviet Russia is making a large contribution to the development of the USSR national economy. The growth of its economy is characterized by a steady rate. Thus, in the past three years the national income of the republic increased 15.9 percent, the industrial production volume increased more than 15 percent. The workers of the republic have to solve enormous problems during the remaining period of the five-year plan. This year alone it is planned to increase the national income by 5 percent and industrial production by 5.6 percent, including by 7.2 percent in Siberia and the Far East.

Great importance is being ascribed to the development of /heavy industry/  
/in italics/--the foundation of the socialist economy: the fuel and power, chemical and petrochemical sectors, metallurgy and machine building.

In 1978 the production of petroleum (including gas condensate) increased in the republic as compared with 1975 by 97.6 million tons, that of gas increased by 70.6 billion m<sup>3</sup>. In three years 17.4 million tons of petroleum and 15.9 billion m<sup>3</sup> of gas were obtained in excess of the volumes called for by the five-year plan. Not one country of the world now produces as much petroleum as do the fields of the RSFSR.

The accelerated growth of the production of petroleum and gas requires of the workers of the petroleum and gas industries and associated sectors a practical attitude toward the solution of many problems connected with the development of the resources of the eastern regions of the RSFSR, the development and adoption of progressive work methods, new equipment and processing methods, the automation of technological processes and production management, the implementation of measures on the reduction of losses and the complete utilization of natural resources. An example of the rational use of natural resources is the development in the short time of the Orenburg Natural Gas Refining Complex, the largest in the world, with the extraction from it of sulfur of high purity, stable gas condensate and helium. The building of the Soyuz gas pipeline, which is unique in its capacity and length and through which gas is fed to the fraternal countries, was mentioned at the 33d CEMA Session among the more important results of the close fruitful cooperation of the member countries of this organization in various areas of production, science and technology.

Enormous coal reserves--about 200 billion tons, or more than 70 percent of the all-union reserves--have been proven on the territory of the RSFSR. The extraction of coal is increasing, production efficiency is rising. The average monthly productivity of a worker at the working drifts in the past 10 years has increased 1.5-fold and in 1978 exceeded 200 tons. New, highly mechanized mines, such as the Raspadskaya in the Kuzbass, are being put

into operation. Its capacity is 7.5 million tons of coal a year, which exceeds the extraction on the entire territory of the RSFSR in 1913.

The reequipping of open coal pits is being carried out at an intensive rate. Highly productive excavators and means of transportation are finding greater and greater use in the open pits. This will make it possible to steadily increase the volume of coal extraction by open-cut mining, the proportion of which in 1978 was 45.3 percent.

The movement of brigades and sections for the extraction of 1,000 tons of coal and shale a day from one completely mechanized face was of particular importance in achieving high indicators of the work of the coal industry. Today more than 200 such brigades are working in the RSFSR. Among the leading collectives are the brigades of M. Chikh of the Mayskaya Mine of the Rostovugol' Association, A. Devyatko of the Rospadskaya Mine of the Yuzhkuzbassugol' Association and A. Smirnov of the Yubileynaya Mine of the Gidrougol' Association, which extract 1 millions tons of coal or more each a year.

However, the production successes cannot overshadow the unresolved problems. The latter are connected with the lag of capital construction and the slow placement into operation of new production capacities, the lack of construction starts, especially in such an important coal basin as the Kuznetsk Basin. While developing new fuel bases for the East, the USSR Ministry of the Coal Industry is devoting inadequate attention to the construction in these regions of well-appointed apartment houses and municipal structures with allowance for modern requirements. The orientation at a number of places toward the construction of temporary housing and cultural and everyday facilities is not justified from either the economic or the social point of view. It inevitably leads to the turnover of personnel and costs the state dearly.

The reserves of peat in Soviet Russian exceed 186 billion tons. Products of a wide assortment for agriculture are produced on the basis of the processing of peat, but its complete comprehensive utilization is still inadequate. The mining in the Nonchernozem Zone, where the extensive use of peat for fuel has sharply reduced its reserves, requires an especially careful, economical attitude. In this region, as was indicated by government decisions, peat should be used mainly as a fertilizer for agriculture.

The development of ferrous metallurgy on the territory of the RSFSR during the current five-year plan is characterized by the increase of the production volume of ferrous metals and an increase of the technical level of the sector. As a result of the implementation of the decisions of the 25th CPSU Congress the production volume of pig iron will increase this year as compared with 1975 by 10.4 percent, steel--8.1 percent, finished rolled products--14 percent, steel pipe--19.4 percent.

An important field of work of the metallurgists is the increase of the production of economical types of rolled products, the expansion of their assortment and the increase of quality. In three years of the 10th Five-Year

Plan more than 500 new types of high quality metal products have been put into production, which has given the national economy a great profit. Thus, the use of economical sections of rolled products alone made it possible to save 1.4 million tons of ferrous metals. The results are appreciable, but at the same time the assignments of the five-year plan on the improvement of the quality and the enlargement of the assortment have not been completely fulfilled. The reduction of the downtimes of units and equipment, the increase of the utilization of capacities and the fulfillment of the plan on the shipments of metal under subcontracting arrangements and the orders of the national economy are great reserves of metallurgists.

Machine building is playing an important role in the assurance of a high rate of technical progress and the increase of the efficiency of social production. During the 10th Five-Year Plan the output of the products of machine building and metalworking will increase considerably.

More than 6,000 new types of machines, equipment, instruments and materials for the technical equipment and reequipment of all the sectors of the national economy were put into production during the past years of the five-year plan. A number of large machine building facilities, including the first sections of the Kama Motor Vehicle Plant, Atomash and the Abakan Container Plant, have been put into operation.

The output of machinery for agriculture is increasing. In three years of the current five-year plan new and modernized agricultural machinery of 136 descriptions has been put into production. The number of types of series-produced mounted machines for the K-701 and T-150K tractions increased from 37 to 44.

At the same time the output of machinery for a number of sectors still does not meet the demands. The problems of mechanizing and automating manual labor, especially in materials handling, loading and unloading, warehousing and other auxiliary operations, are being solved slowly. A large number of workers are still employed in these sections.

Agriculture, light and the food industry and consumer services are not being completely supplied with the necessary machinery and equipment. For example, of the 272 descriptions of new agricultural machinery subject to placement into production during the current five-year plan less than half was introduced into production in the first three years. The level of the mechanization of labor in the harvesting of vegetables is low, as a result of which its input in vegetable growing is considerably higher than in grain farming. The level of mechanization in the cultivation and harvesting of tomatoes, cabbage, carrots and green crops, as well as in horticulture is especially low.

Machine building plants, as a rule, do not engage in the repair service of the equipment and machinery being produced and are not ensuring the proper production of spare parts, replacement parts and subassemblies. The organization of repair work in the user sectors is considerably more

expensive. Here the labor productivity of the workers is lower and the yield per unit of fixed production capital is considerably less. At present the elaboration of measures on the acceleration of the growth of machine building production, the improvement of its structure, the increase of the technical level of the output, the increase of the production of spare parts, as well as the outstripping development of the production of the products and services for general machine building use on the basis of specialization and cooperation is assuming great importance.

During the 10th Five-Year Plan the chemical industry is developing at an accelerated rate. Approximately two-thirds of the chemical and petrochemical products of the country are produced on the territory of the republic. However, in the past three years the assignments on placing a number of important facilities into operation were not fulfilled. The workers of plants and factories, kolkhozes and sovkhozes, which use the products of the chemical industry, expect that the collectives of the enterprises of this sector will increase the production and enlarge the assortment of goods, especially chemical agents for protecting plants for agriculture, synthetic colorings for light and the textile industries.

The party Central Committee is devoting special attention to the development of the sectors which produce /consumer goods/ [in italics]. At the November (1975) CPSU Central Committee Plenum L. I. Brezhnev emphasized that a group B which meets the present requirements is an important condition for the effective operation of the economy as a whole.

In three years of the 10th Five-Year Plan the production volume of consumer goods at the enterprises of the republic increased 11 percent. Last year alone hundreds of millions of rubles of these products were produced in excess of the plan. For example, the collective of the Dmitrov 'United' Production Association fulfilled the assignment for three years of the five-year plan ahead of time and produced 13 million rubles of clothing for children in excess of the plan. The entire increase of the output was obtained here by means of an increase of labor productivity.

A large number of new types of items have been put into production and their assortment has been enlarged at the enterprises and associations which produce consumer goods. The updating of the assortment of clothing and shoes is 60-65 percent annually, cotton fabrics--53-55 percent, woolen fabrics--35-40 percent. In the food industry in three years of the 10th Five-Year Plan alone more than 200 types of new and improved items were put into production.

The extensive use of advanced know-how and the development of socialist competition are making it possible to increase substantially the output of consumer goods. This is especially important as their production still does not fully conform to the tasks set by the 25th party congress. Thus, last year the enterprises of the textile and light industries did not fulfill the plan on the production of woolen and silk fabrics and leather shoes. The demand of the population of some items of the children's variety is not being



fully met. Some sectors of heavy industry did not cope with the plan of production of goods for cultural and everyday purposes and household use, while ferrous metallurgy enterprises even reduced the output of enamelware and galvanized ware as compared with 1977. Unfortunately, it sometimes also happens that the population in some autonomous republics, krais and oblasts is not being supplied with the household goods, for the production of which both the production capacities and the local raw material resources exist.

During the fourth year of the five-year plan the output of consumer goods has to be increased significantly. The RSFSR Council of Ministers regards the assignments on the production of these goods as the minimum assignments. The republic associations, ministries and departments are seeking the means to increase the production of consumer goods in amounts which will make it possible to meet the demands of the Soviet people more completely.

The present /party agrarian policy/ [in italics] is serving the achievement of the most important economic and social goals. Much work on the consolidation of the material and technical base of kolkhozes and sovkhoses, the specialization and concentration of production and the social development of the countryside is being carried out in conformity with the policy of the March (1965) CPSU Central Committee Plenum.

During the years of the current five-year plan the workers of the RSFSR countryside have achieved an increase of the production and sale to the state of the main products of farming and livestock breeding. The average annual gross production volume of agriculture as compared with the Ninth Five-Year Plan has increased 6 percent. The state purchases of grain increased 29 percent, sugar beets--32 percent, potatoes--19 percent, vegetables--25 percent, livestock and poultry--2 percent, milk--11 percent, eggs--31 percent and wool--7 percent.

Foremost attention in the republic is being devoted to the increase of grain production. In recent years the efficiency of farming has increased appreciably; new, higher yielding strains are being actively introduced in production; the structure of the grain field is being improved. All this is yielding its results. On the average during the past three years the gross harvest of grain was 124 million tons as against 103 million tons during the Ninth Five-Year Plan.

At the same time the increase of grain production as before remains the most important task, for the development of the other sectors of agriculture, and above all livestock breeding, depends on this. In order to meet more completely the needs of the republic for grain it is necessary in the near future to increase the average yield of cereals at kolkhozes and sovkhoses to 20 quintals/hectare. The specialists and workers of the leading farms consider this level quite achievable: for last year the yield of cereals in the republic was already 17.5 quintals/hectare. Much work on increasing the yield will be carried out by means of the increase of the efficiency of farming, the improvement of agricultural technology, the improvement of seed growing, the efficient use of equipment, mineral and organic fertilizers and

the active introduction in production of the achievements of science and advanced practice.

Much has to be done to boost the yield and increase the gross harvests of sugar beets, sunflowers, potatoes, vegetables and flax fiber. A number of kolkhozes and sovkhoses and some autonomous republics, krays and oblasts are indebted to the state, having decreased the shipments of these products.

As the yield increases, the problem of the safe keeping of everything grown on the fields becomes more acute. In accordance with the party instructions specific measures on the consolidation of the material and technical base of the enterprises and organizations involved in the storage and processing of agricultural products, on the provision of kolkhozes and sovkhoses with special packaging and transportation and on the organization of the receipt of products directly at the farms have been elaborated and are being implemented in all the oblasts, krays and autonomous republics of the RSFSR. This year more than 1 billion rubles, or 34 percent more than in 1978, have already been allocated for these purposes. The base for the storage of fruits and vegetables is being developed.

The development of livestock breeding is a subject of particular concern of the republic party, soviet and economic organs. The steady increase of the well-being of the Soviet people presumes a greater and greater demand for the products of this sector, which, unfortunately, is not being fully met.

Under present conditions the creation at each farm of a strong fodder base has assumed great importance for the development of livestock breeding. In the opinion of scientists and specialists, the existing number of livestock and their genetic potential make it possible with good feeding at the same facilities and with the same personnel to increase significantly the production of meat and milk. The practicability of this task is also confirmed by the experience of the leading farms, which mainly owing to full-value feeding are raising highly productive livestock and poultry.

In recent years the problem of protein has become acute. According to the estimates of specialists, due to the great shortage of protein the farms are leaving a considerable amount of products, while their production cost and the consumption of fodders are increasing. In this connection the kolkhozes and sovkhoses plan the increase of the sowings of legumes, soybeans, alfalfa, clover and other high-protein crops and are increasing the use of carbamide and other nitrogen compounds in the daily diets of animals.

The republic government has elaborated specific measures on the elimination of the shortcomings in fodder production and envisages an extensive program of the construction of fodder storages. At the kolkhozes and sovkhoses work is being performed on the improvement of the organization of fodder production. The experience of setting up permanent specialized brigades and links has shown itself to be favorable. In Gor'kovskaya Oblast, for example, 250 fodder production brigades, which are furnished with special equipment, are at work. Three-fourths of the area of fodder crops have been assigned to

them. There are also other forms of the organization of fodder production, which have proven their value.

At the same time attention is being devoted to the increase of the number of livestock and poultry and the improvement of labor organization on the farms. Much work is being performed on the specialization and concentration of livestock breeding on the basis of interfarm cooperation and agro-industrial integration. At present the specialized farms of the RSFSR provide: more than 90 percent of the total production of eggs in the republic, approximately 50 percent of the pork and 20 percent of the beef. However, there are shortcomings in the accomplishment of the specialization and concentration of agricultural production. In some oblasts, krays and autonomous republics these processes are developing slowly.

The subsidiary farms of plants and factories, as well as the private plots of the population are an important reserve for supplementing the resources of meat, milk and other products. Steps are being taken in the republic to provide these farms with young animals, assistance is being given in the acquisition of fodders, construction materials and so on. In the past two years, for example, the sale of piglets to the population increased 1.5-fold, that of chicks increased nearly 2-fold.

The transformation of the agriculture of the Nonchernozem Zone of the RSFSR, where, in essence, the production base of land reclamation workers and rural builders is being created anew and planned work on the socio-economic reconstruction of the countryside and the training of skilled personnel is being carried out, is a subject of particular concern of the party. Thus, in three years of the 10th Five-Year Plan the fixed production capital of kolkhozes and sovkhozes increased 32 percent, power capacities--27 percent and the delivery of mineral fertilizers--16 percent. All this is having a favorable effect on the results of the economic activity of the kolkhozes and sovkhozes. In the Nonchernozem Zone the production of meat, eggs and other products is increasing, the appearance of settlements and villages is changing. However, as L. I. Brezhnev noted at the July (1978) CPSU Central Committee Plenum, the work on developing the Nonchernozem Zone has not yet achieved the scope and efficiency, which are necessary for the successful solution of the posed tasks. A serious lag has occurred in capital and reclamation construction. The organizations of the USSR Ministry of Construction, the USSR Ministry of Industrial Construction, the RSFSR Ministry of Rural Construction and the Main Administration of Construction in Moscow Oblast are indebted to the rural workers. The Main Administration for Reclamation in the Nonchernozem Zone did not cope with the planned production volume. The plans on the making of purchases of some types of agricultural products are not being fulfilled.

The primary task of the land reclamation workers and builders, agricultural workers and all those whom the party has charged to implement the far-reaching program of the transformation of the Nonchernozem Zone is to make up for what has been missed in the shortest possible time and to ensure the unconditional fulfillment of the plans of the current year and the five-year

plan as a whole. For this it is very important to create in the countryside a permanent skilled labor force.

The 25th party congress devoted much attention to the questions of the /improvement of capital construction/ /in italics/. During the past three years in the RSFSR the amount of capital investments increased 38 percent as compared with 1971-1973, fixed capital worth 207.6 billion rubles was put into operation, more than 400 large industrial enterprises were built, 3.8 million apartments and individual homes were put into operation, a considerable amount of cultural and general construction was performed.

At the same time serious difficulties in republic capital construction were not overcome. Such a shortcoming as the dispersal of capital investments among numerous construction projects and the increase of the amount of unfinished construction has been far from eliminated. Many construction organizations are not fulfilling the established plans. The level of the industrialization of construction is increasing slowly, there are shortcomings in the planning, financing and material and technical supply of construction. At a number of construction projects the machines, machinery and production capacities are being poorly utilized, the technological discipline and the organization of labor are poor. Too little attention is being devoted to the quality of construction, frequently the projects are turned over with numerous flaws in workmanship.

The development of construction is inseparably connected with the increase of its technical level and the consolidation of the industrial base. The construction projects need today not only semifinished products, but also elements which have been completely prefabricated at the plant. The improvement of matters in capital construction largely depends on the balance of the amounts of construction and installation work with the capacities of the construction organizations, the amounts of capital investments with the potentials of the enterprises which supply machinery and equipment for the projects being built. It is extremely important to coordinate more closely the planning of the work of construction organizations, the construction materials and construction elements industry, machine building, as well as the organizations which carry out the technical supply of construction projects with complete sets of equipment and materials.

One of the urgent problems is the shortening of the term of construction of projects. Its solution requires the radical improvement of the organization of construction, the intensification of cost accounting relations in all the links of construction and the extensive dissemination of the Orel method in the construction of production facilities. It is necessary to improve the method of determining the estimates of construction. It is impossible to tolerate such a situation, when the actual cost of many built projects at times exceeds by 2-3 times the estimated cost.

In recent times much has been done to develop the /transportation network/ /in italics/ of the republic. New rail lines are being built, the



construction plans of the Baykal-Amur Main Rail Line are being successfully implemented. The production base of industrial transportation is being strengthened. The inland waterways, the length of which at the beginning of 1978 reached 123,000 km, are growing. Motor, air and pipeline transport are undergoing great development.

The accelerated rate of economic construction of Soviet Russia requires the improvement of the work of transport, which does not fully meet the growing needs of the national economy. It is necessary to eliminate more rapidly the "bottlenecks" which have formed in rail transport. And this is the task not only of railroad workers, but also of construction workers, the ministries of transport construction, machine building and other sectors. All the enterprises and organizations using the services of the Ministry of Railways should contribute to the improvement of the operation of rail transport in order to ensure the timely loading and unloading of cars.

The work experience of the Leningrad Transportation Center on reducing the costs in delivering cargo to consumers, as well as the Pavlovo method of the comprehensive transportation dispatch service of enterprises and organizations merit the utmost dissemination. RSFSR motor transport workers are taking steps to expand the centralized shipments of cargo in trailer trucks, containers and on pallets and to eliminate small motor transport managements.

The RSFSR river workers have to do much in order to increase the traffic volumes and to utilize the fleet and port equipment more effectively. The amount of work in the regions of the North, Siberia and the Far East, where the demands for shipments are not being fully met, is especially great.

In the republic the amounts of road construction, including in rural areas, are increasing annually. However, the length and quality of the roads in many regions do not meet present requirements, due to which the national economy is incurring great losses. The workers of the road organizations and the local soviets are looking for additional resources for the utmost improvement of the quality of construction of roads and roadside structures.

The subdivisions of civil aviation are performing a larger and larger volume of shipments in the RSFSR. In recent years in many cities new runways for handling long-haul airplanes have been built, airports of local airlines have been put into operation. At the same time the construction of airports in a number of places is being carried out incompletely, in connection with which serious shortcomings are occurring in passenger service, on the elimination of which both aviators and local organs are called upon to work.

During the past three years of the five-year plan the assignments of the development of means of /communication and television/ /in italics/ on the territory of Russia have basically been fulfilled. Tens of new television stations have been put into operation, as a result five-sixths of the RSFSR population have the opportunity to watch television broadcasts, including in color. The new television stations and the Ekran space hookup are making it possible to receive television channels in the small population centers on the



territory of Western and Eastern Siberia. Much work is being carried out on the construction of intraworks telephone communications in the countryside and the strengthening of postal enterprises. At the same time many autonomous republics, krays and oblasts of the RSFSR still lag behind in the development of urban and intraoblast long-distance telephone communications and mail service. The ispolkoms of the local soviets and the production and technical administrations of the USSR Ministry of Communications should devote more attention to these important questions.

The economic potential of Russia and its certain growth create a reliable basis for the gradual implementation of the /social program/ /in italics/, which was outlined by the 25th CPSU Congress. The real income of the population is increasing. In terms of one resident of the republic it increased in 1978 as compared with 1975 by 11.2 percent. The average wage of workers and employees increased 9.8 percent, while the pay of kolkhoz farmers increased 18 percent. At the same time the income of the less well-to-do families is being increased at an outstripping rate. The amount of payments and benefits from the public consumption funds in the RSFSR has increased during the years of the 10th Five-Year Plan by nearly 18 percent. Now more than 450 rubles a year are spent from this fund per resident of the republic.

Along with the increase of the income of the population the demands for foodstuffs, cultural and general-purpose goods and various services have begun to be met more completely. In three years of the 10th Five-Year Plan the retail commodity turnover increased 12.7 percent, while the volume of personal services increased 22 percent.

Housing construction is being carried out on a large scale in the republic. In three years of the 10th Five-Year Plan more than 18 million citizens held house-warming parties. Health services are being steadily developed, the conditions of the work and relaxation of people are improving. A large detachment of medical personnel, including 524,000 physicians, works at the republic health institutions. There are 38 physicians per 10,000 people in the RSFSR, which is considerably higher than in many highly developed countries of the world. The achievements of modern science and new methods of diagnosis and treatment are being widely adopted in medical practice; the preventive treatment for diseases is being stepped up.

The party and the state are displaying constant concern about the rising generation, its education and comprehensive harmonious development, the training of young boys and girls in the spirit of deep respect for labor for the goods of the socialist homeland. The improvement of education and the consolidation of the ties of school with the production collectives made it possible to train young people better for an independent labor life. More and more graduates of the general educational schools are choosing a career in the sphere of physical production, including in the countryside.

The role of vocational and technical schools in the reinforcement of the working class with skilled workers is increasing with every year. In 1978 alone they trained for the national economy of the republic more than

1.3 million highly skilled workers, including about 500,000 who have a specialty and a general secondary education.

The importance of the higher school in the training of specialists for the national economy, science and culture in implementing the far-reaching plans for building communism is increasing as never before.

Major gains have been made in the cultural development of all the nations and nationalities of the RSFSR. The republic has an extensive network of clubs, libraries, museums, theaters and movie theaters. The national and people's theaters and the collectives of amateur art activity enjoy great popularity among audiences. The role of socialist culture and art in the ideological, political, moral and esthetic education of the Soviet people and in the formation of their spiritual needs is constantly increasing.

The accomplishment of fundamental social transformations in the life of the workers of the RSFSR is vivid evidence of the practical embodiment of the program motto of the Communist Party: "Everything on behalf of man, for the good of man." The scale and consistency of the implementation of the social program and the active creative participation of all the citizens of the republic in the solution of its diverse tasks confirm the effectiveness and completeness of the socio-economic, political and personal rights and freedoms which are proclaimed and guaranteed by the USSR Constitution, the RSFSR Constitution and Soviet laws.

The more complete utilization of the intensive factors of economic growth, the increase of the efficiency of social production and work quality and the improvement of labor productivity are decisive conditions for the accelerated development of the economy and culture.

During the past years of the 10th Five-Year Plan the productivity of national labor in the republic increased 12 percent. Owing to this the labor of more than 6 million people was saved and about 80 percent of the national income was obtained. The experience of the Shchekino Azot Association, the Moscow Dinamo Plant and many other associations and enterprises, which achieved a considerable increase of the output with a reduction of the number of workers, merits extensive dissemination.

However, many enterprises and organizations are not coping with the set plans on the increase of labor productivity. The biggest lag in the fulfillment of the assignments of three years of the five-year plan for this indicator was allowed by the production collectives of the RSFSR Ministry of the Construction Materials Industry, the RSFSR Ministry of the Meat and Dairy Industry and the RSFSR Ministry of Rural Construction. The reason lies in the inadequate increase of the technical level of production and the inadequate introduction of complete mechanization and automation, especially in auxiliary operations. At a number of enterprises the advantages of the Shchekino experience, the brigade contract and other methods, which promote the acceleration of the increase of labor productivity, are not being utilized enough. The control over the timely revision of obsolete norms and the introduction of new ones is being poorly exercised.

Much has to be done on the improvement of the organization of production and labor, the rational use of working time, the tightening up of production and labor discipline, the reduction of the turnover and the improvement of the skills of personnel.

Emphasis on the better use of equipment, machine tools and units and the increase of the output-capital ratio is necessary for the successful solution of the tasks set by the 25th party congress. Many collectives have achieved good results in this. The rated capacities are being successfully assimilated at the Novolipetsk Metallurgical Plant, the Kemerovougol' Production Association, the Yeysk Sewing Factory, the Kursk Tanning Production Association and other enterprises.

However, there are enterprises which due to the unsatisfactory assimilation of the production capacities and their incomplete utilization since being placed into operation are slowly recovering the capital spent on construction. The capacities are being slowly assimilated, for example, at the Chelyabinsk Electrometallurgical Combine, the Balakovo Chemical Plant and the Tyumen' Worsted and Felt Combine.

The increase of the shift coefficient of equipment, which will make it possible to additionally produce a considerable amount of products, is a serious production reserve, especially in machine building.

Under present conditions the reequipment and reconstruction of operating plants and factories are becoming the most important factors for increasing the efficiency of social production. Many enterprises are achieving a great efficiency of reconstruction. Thus, at the Voskresensk Minudobreniye Association imeni Kuybyshev as a result of reconstruction the production of phosphoric acid on the same area increased 30 percent. The reconstruction of the sheet rolling mill, which is now being carried out at the Kuybyshev Metallurgical Plant imeni V. I. Lenin, will make it possible to increase the output 2.3-fold without an increase of the number of workers. Good experience has been gained at the enterprises of the textile industry of Ivanovskaya and Moscow oblasts, as well as in agriculture, construction and other sectors.

Practice shows that the planning, designing and performance of the work on the reconstruction of enterprises are closely interconnected. Success largely depends on the comprehensive solution of the questions of replacing the fixed capital and providing all the necessary resources. Economic and planning organs, supply and acquisition organizations play an important role in this matter.

The economical, rational use of everything that the national economy produces, everything that our society has, is a key task of the economic activity at the present stage of the building of communism. Much has already been done in this direction at the enterprises of RSFSR ministries and departments. Last year, for example, in the RSFSR Ministry of Local Industry the rate of consumption of rolled products was reduced 4.1 percent, the RSFSR Ministry

of Construction and Utilization of Roads--4.3 percent, the Ministry of Housing and Municipal Services--4.6 percent (with an assignment respectively of 3.5, 3.2 and 3.2 percent). There have been many good initiatives in the matter of the economical use of material resources at the enterprises of Moscow and Leningrad, Kuybyshevskaya and Kemerovskaya oblasts. The experience approved by the CPSU Central Committee of the enterprises, construction projects and organizations of Chelyabinskaya Oblast, where planned work on the saving of metal, the increase of its quality, the reduction of the metals-output ratio of machinery and equipment and the improvement of technological processes is being carried out, is becoming more and more widespread.

At the same time many associations, enterprises, kolkhozes and sovkhoses are not keeping within the set assignments on the saving of raw materials and materials. The number of such enterprises in the construction materials industry and in the system of the RSFSR State Committee for the Supply of Production Equipment for Agriculture is decreasing slowly.

The economical and rational use of fuel and power resources is one of the most urgent problems. In the past three years the number of enterprises and organizations of the republic, which have not fulfilled the established norms, has decreased. However, their number is still great, and the RSFSR ministries and departments have to continue the work on reducing the consumption of fuel, particularly in agriculture, where the opportunities for saving fuel and lubricants are not being taken full advantage of. The drive for economy and thrift should become a firm rule for each collective and each worker and an important direction of socialist competition.

The acceleration of scientific and technical progress is assuming particular importance at the present stage of development of the socialist economy. In three years of the 10th Five-Year Plan 6,800 models of new types of machinery, equipment, instruments and automation equipment have been developed in the republic. The complete mechanization and automation of 10,000 shops, sections and works were carried out. Many modern technological processes have been developed and are being used successfully. The economic impact from the introduction of new equipment and processing methods in industry alone during this period was about 8 billion rubles.

The party and the Soviet Government attach enormous importance to the development of scientific research. With each year the amounts of financing increase, the material and technical base of scientific institutions is expanded and strengthened. A mighty scientific potential has been created in the RSFSR. In the republic a developed network of scientific institutions is in operation, large territorial and sectorial scientific complexes of the USSR Academy of Sciences and the All-Union Academy of Agricultural Sciences imeni V. I. Lenin have been formed. About 70 percent of the scientists of the country work at RSFSR scientific institutions. The collectives of higher educational institutions, many of which have been transformed into genuine scientific educational centers, are performing scientific research work.



Guided by Lenin's theses on the strengthening of the link of science with production, the scientists of the republics are making a significant contribution to the solution of the social and economic problems of national economic development. For example, the scientific institutions of the Siberian Department of the USSR Academy of Sciences offered more than 80 major scientific developments for adoption in production.

Experience shows: the adoption of scientific achievements in production is expedited when it takes place within scientific production associations, which are granted extensive rights in the planning, resource backing and stimulation of work on new equipment. Many scientific production complexes have achieved good results in this area. Thus, at the Pishchepromavtomatika and Plastpolimer scientific production associations the term for the introduction of scientific developments was cut in half. At the Kriogenmash Scientific Production Association this made it possible to increase the proportion of new equipment from 20-30 percent in 1970 to 75-80 percent in 1977.

It is also necessary for further improve the forms of the organization of scientific research and the adoption of its results in production, including at scientific production associations. Some ministries are not taking sufficiently into account the specific nature of the latter, regarding them as purely production units. In this connection those subdivisions of them, which are engaged in the development of new items, including the experimental shops and sections, also receive an assignment on the output of products. Such a situation does not promote the acceleration of the development of models of new products and diverts the personnel of the introduction services from their immediate job.

The purposeful and efficient use in production of the achievements of science and technology presumes the further enlargement and strengthening of the material base of scientific institutions, their provision with the latest instruments and equipment, the improvement of the system of the moral and economic stimulation of scientists and the increase of the contribution of each scientist and scientific institution to the matter of expediting scientific and technical progress.

To strive actively for an increase of the efficiency of social production means to steadily improve the quality and consumer attributes of products, to increase their technical level. This yields a great economic, social and political impact. At present more than 32,000 items produced in the republic have been awarded the State Seal of Quality. During the years of the current five-year plan the output of products with the Seal of Quality increased 3.9-fold in the RSFSR Ministry of Light Industry, 3.1-fold in the RSFSR Ministry of the Textile Industry and 12-fold in the RSFSR Ministry of Local Industry. The Volga Motor Vehicle Plant imeni 50-letiya SSSR and the Moscow Krasnyy proletariy Machine Tool Building Plant, at which more than 95 percent of the items are produced with the Seal of Quality, can serve as an example of purposeful work in this respect. The Gor'kiy Mayak Clothing Association, the Shchelkovo Felt Factory and many other enterprises have achieved good results.

At the same time at a number of enterprises the proportion of products with the Seal of Quality is low, low quality items, the appearance and consumer attributes of which do not meet present requirements, are still being produced. The drive for quality and the honor of the tradename should become the most important direction of the activity of enterprises, planning and economic organs. Socialist competition, the system of economic and moral stimuli, the efforts of engineers and designers and the workmanship of the workers should be clearly aimed at the steady increase of product quality.

Under the conditions of the continuous increase of the scale of production and the complication of its structure the further improvement of management and planning is assuming great importance. In the decree of the CPSU Central Committee, "On the 50th Anniversary of the First Five-Year Plan of USSR National Economic Development," the task is set: to increase all planning work to a qualitatively new level, to comprehend economic problems more thoroughly, to make a creative search for the optimum ways of solving them with full responsibility and initiative.

The optimum combination of sectorial and territorial planning is very important for the RSFSR, where an enormous multisectorial economic potential is located on the territory of 16 autonomous republics, 6 krays and 49 oblasts and the cities of Moscow and Leningrad. In a speech to the voters of the Bauman Voting District of Moscow in March 1979 L. I. Brezhnev emphasized that only "the reasonable combination of the sectorial and territorial principles can ensure efficient management." Practice shows that the consideration of territorial conditions is necessary in solving questions of the use of manpower and natural resources, the organization of capital construction and the development of consumer services.

In recent years the party Central Committee has devoted much attention to the planning of comprehensive economic and social development on the territory of the union and autonomous republics, krays and oblasts. Some experience on this level has been gained in the RSFSR. Plans of the development and location of productive forces throughout the republics as a whole, the economic regions, autonomous republics, krays and oblasts are being drawn up. The main indicators of the comprehensive economic and social development of the Far East, Eastern Siberia, Krasnoyarskiy Kray, Tyumenskaya Oblast, Moscow, Leningrad and Leningrad Oblast are established in the five-year and annual plans.

Local party and soviet organs have been devoting more and more attention in recent years to the plans of comprehensive economic and social development. Using extensively the experience of Leningrad and Sverdlovskaya oblasts, which was approved by the CPSU Central Committee, many oblasts and cities of the RSFSR had already drafted such plans for the 10th Five-Year Plan. This is promoting the strengthening of the organizational and mobilizing role of the plan, is enabling the workers to participate more actively in the management of the economy, to better combine their interests with the interests of the state and to create obstacles for the display of departmental

and regional tendencies. On the basis of these plans the party and soviet organs have launched socialist competition for the early fulfillment of the assignments by all enterprises.

The gained experience is becoming widespread. The soviets of people's deputies, which in conformity with the Constitution are called upon to ensure the coordination of the activity of all the ministries and departments in the area of land use, nature conservation, construction, the use of manpower resources, the production of consumer goods, the social, cultural, personal and other service of the population, are taking an active part in this work. The USSR Constitution and the RSFSR Constitution grant the soviets extensive rights and at the same time stipulate the responsibility of republic and local organs of government for the assurance of the comprehensive economic and social development of the rayon, oblast, kray, autonomous republic.

Of course, the comprehensive development of a territory presumes the increase of the level of economic planning work, and not only locally, but also in the ministries and departments. The point is, in particular, that they should increase the attention toward the elaboration of the territorial aspect of their plans and take more completely into account the proposals of the soviets of people's deputies on questions of increasing the effectiveness of the utilization of the economic potential of the territory. Only the joint active work of the ministries and departments, the central and local planning organs will make it possible to ensure the proportionate, comprehensive economic and social development of each economic region, each autonomous republic, kray and oblast.

The extensive use of the program-goal method of solving major regional intersectorial problems, including when forming territorial production complexes, is, as the 25th CPSU Congress noted, an important direction of the improvement of planning. In conformity with the congress directives on the intensification of the comprehensive approach to solving important national economic problems, major programs on the development of agriculture of the Far Eastern Zone, the development of the zone of the Baykal-Amur Main Rail Line and the utilization of the petroleum and gas resources of Western Siberia are being implemented. On the instructions of the republic government the RSFSR Gosplan with the participation of the ministries, departments and local planning organs is elaborating for the period up to 1990, with the singling out of the 11th Five-Year Plan, the main indicators of the formation and development of the territorial production complexes of Northwestern Siberia, Sayansk, Southern Yakutia, Timano-Pechora, the zone of the Kursk Magnetic Anomaly and the Kansk-Achinsk Coal Basin.

At the same time there are shortcomings in the formation of the territorial production complexes. The lack of synchronism in placing interrelated works into operation and a lag in the development of the infrastructure, including the nonproductive sphere, are being observed. Meanwhile, as is known, a real impact from the development of territorial production complexes can be

obtained only with a certain combination in them of enterprises of various sectors on the basis of the complete use of the nature resources of the given territory. The complete processing of raw materials makes it possible to develop an entire group of sectors, ensuring thereby the necessary impact, which is reduced considerably if the raw materials are used by only one sector.

The lack of special management organs, which are called upon to coordinate the activity of the large number of ministries, departments and local organs, which are participating in the implementation of the specific programs, the uniform long-range and current plans of the construction of all the projects belonging to the territorial production complex, is being felt especially acutely. The directives of the 25th CPSU Congress on the fact that the appropriate organs, which bear the responsibility for all the phases of the work--from the designing to the practical accomplishment--are necessary for the implementation of the intersectorial regional programs, require realization. In this case the program-goal approach will be integrally combined with the sectorial and territorial aspects of planning and management.

Environmental protection is becoming a more and more important object of planning, which is the result of the unprecedented involvement of natural resources in the economic turnover. In recent times comprehensive measures have been elaborated for the elimination of the pollution of the basins of the Volga and Ural rivers, the improvement of Lake Baykal, the control of water and wind erosion and the prevention of possible disturbances of the ecological equilibrium in the construction zone of the Baykal-Amur Main Rail Line. But some ministries and departments are slowly introducing low-waste technological processes, dischargeless systems of water use, dust removers and gas scrubbers, and are not engaging properly in the recultivation of land and the protection of the animal and plant kingdom. The location of productive forces and the construction of enterprises with allowance for environmental protection are a vital problem. It is important to stipulate in the plans of development of the sectors nature conservation measures and to step up the monitoring of their fulfillment and the efficient use of the assets being allocated.

The increase of production efficiency is inseparably connected with the improvement of its organizational structure, with the improvement of management. In past years in the RSFSR considerable work has been done in this direction. More than 2,000 production and scientific production associations are in operation in RSFSR industry. The construction organizations are being enlarged. Interfarm and agro-industrial enterprises and organizations are undergoing development in agriculture. The work experience of the Moscow ZIL Production Association, the Leningrad Svetlana Association, the Kurovskoye Blend Production Association, the Ptitseprom Association and many others shows that their creation made it possible to implement technical, economic and organizational measures, which it was impossible to carry out before, and to substantially improve the quality indicators of production. This work should be carried out even further.



The majority of sectors have been converted to more rational schemes of management. According to the estimates of the RSFSR Gosplan, the introduction of these schemes made it possible to achieve a substantial saving of capital, including by the reduction of the expenditures on the pay of the management staff. The main thing is that the new schemes make it possible to increase the efficiency of management of the economy and, at the same time, the production efficiency.

Socialist competition, in which the creativity of the broadest masses of workers is expressed, is playing an enormous role in the drive to implement the plans of building communism. In development of Lenin's ideas on the labor competition between plants, regions, shops and individual workers the 16th party conference adopted 50 years ago an appeal to all the workers and working peasants of the Soviet Union on the development of mass socialist competition. Today millions of people are participating in this movement. Creative initiatives, which are aimed at the increase of labor productivity, the reduction of the production cost and the increase of the quality of the products being produced and the intensification of production in all sectors of the economy, are emerging and being disseminated in the labor collectives of the RSFSR.

The workers of the RSFSR, as of the other union republics, are firmly resolved to accomplish the tasks set by the 25th party congress and to ensure further forward movement, toward communism.

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## PLANS FOR AUTOMATIC CONTROL SYSTEMS IN GOSBANK DISCUSSED

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[Article: "Problems of Organization of Interaction of ASU [automated control systems]" ]

[Text] In the complex of measures to improve control of the national economy to make fuller use of the advantages and possibilities of the economy of developed socialism, further development and raising of efficiency of automated control systems is vitally important. The 25th CPSU Congress set the goal of successive unification of the ASU's into a single state-wide system of information acquisition and processing for accounting, planning and control.<sup>1</sup> This requires organization of the interaction of state-wide intersectorial automated control systems between themselves as well as with sectorial, departmental and territorial ASU's to assure integration of the processes of development, refinement and monitoring the fulfillment of the state plan for the economic and social development of the USSR at all levels of control.

By its position, the USSR State Bank (Gosbank) is the intersectorial organ of control. By its charter, the Gosbank, in supporting operations effected by it and executing the functions entrusted to it, has the right to issue instructions, on the basis of and in the execution of existing legislation, that are binding on the enterprises, organizations and institutions of all sectors. Gosbank receives the financial plans, accounting and statistical reports and other information required for credit from enterprises and organizations which have loan accounts with the bank. It also receives plans and reports required for credit and cash planning from ministries, departments, administrations and sections of the ispolkoms of the Councils of Peoples Deputies, associations, enterprises, organizations and institutions. Gosbank's credit and cash plans are part of the system of planning for the economic and social development of the USSR. In addition, Gosbank participates in compilation, by the USSR Gosplan and by planning agencies locally, of plan balances of personal monetary income and expenditures required to ensure proper proportions in developing the country's economy.

Considering the intersectorial nature of Gosbank's activity, Gosbank's ASU must interact with the automated systems of such major agencies of state intersectorial control as the USSR Gosplan's automated system of plan calculations (ASPR), the USSR TsSU's [Central Statistical Administration] automated system of state statistics (ASGS), and the USSR Ministry of Finance's automated system of financial calculations (ASFR). At the same time, it is necessary to develop all aspects of interaction of Gosbank's ASU with the ASU's of enterprises, associations and organizations served by Gosbank institutions, with the territorial ASU's and with the OASU's [automated sectorial control system] of the ministries and departments including the USSR Srobybank's [All-Union Bank for Financing of Capital Investments] ASU.

Expanded informational links of all levels of the Gosbank's system with enterprises, organizations and their superior agencies are dictated first of all by the daily exchange between them of documentation on credit-payment, cash and other monetary operations made through Gosbank. It should be noted that the documents, as a rule, are submitted simultaneously to the appropriate levels of the three cooperating agencies of state intersectorial control--the USSR Ministry of Finance, the USSR Gosbank and the USSR TsSU.

In accordance with the decisions of the 24th and 25th CPSU Congresses, establishment of automated systems to control enterprises and associations, sectors of the national economy and regions has expanded in the 9th and elapsed years of the 10th Five-Year Plan.

More than 2000 automated systems controlling associations and enterprises (ASU) and more than 200 sectorial control systems (CASU) are in operation.<sup>2</sup> Automated control systems (RASU) are being developed in all the union republics. The "Bank" automated system handling a comparatively narrow group of accounting-statistical tasks has been operating in the USSR Gosbank for more than 10 years.

Experience in operating the "Bank" system is being used in the development of Gosbank's CASU which is a higher degree of automation of the bank's operations.

However, despite the presence of a wide network of ASU's and CASU's, no interaction between their computing centers (VTs) and the VTs of the "Bank" system has been organized to date. Irrespective of how the information received by Gosbank institutions was processed--whether on computers in computing centers, on perforating calculating machines at information and computing centers and at mechanical accounting shops at Gosbank offices or on automated keyboard accounting machines at calculating machine bureaus of Gosbank offices and departments handling a small volume of operations--the monetary payment documents, plans and reports are submitted to the bank by the associations, enterprises and organizations served in one way--on the prescribed paper forms carried by client representatives or couriers or by mail. Meanwhile, remote teletype communication for exchange of various types of information, primarily information of monetary payment documents,

was introduced long ago in the process of interaction of Gosbank computer complexes with bank institutions served. There is the practice of many years of documentation data transmission for processing at a machine accounting and computing office (FMU) by non-local Gosbank institutions over communication channels with automatic perforation of machine media--cards punched by a telegraph receiver at the FMU. Duplex teletype communication is being introduced between the computing centers and the Gosbank institutions served by them; this system includes automation of the reception of information which is put into a processor at the VTs; output information is transmitted by it for printing on a receiver at the Gosbank institution. Many Gosbank institutions use subscriber telegraph communications to transmit and receive money orders (letter of advice on MFO [interbranch turnover]). This results in accelerated settlements between money order senders and receivers for freight turnover from another city and other payments. About 1600 Gosbank institutions were brought into the subscriber telegraph network during the Ninth Five-Year Plan alone and now more than 50 percent of the bank's institutions are telegraph communication subscribers.<sup>3</sup>

It seems absolutely necessary to organize without delay widespread use of telegraph equipment for the associations, enterprises and organizations to transmit their monetary settlement document information, plans and reports to Gosbank institutions, as well as for the bank to transmit current, special loan and other account statements to the economic agencies. When the clients and the bank have EVM [computers] and FVM [punchcard computers], both parties will save considerable labor on data entry into the computers by using remote data transmission communication combined with automated transfer of the information being received to any kind of machine media--cards, paper or magnetic tape.

An enormous effort lies in the future on interfacing the USSR Gosbank's computing centers with the centers servicing enterprises, associations and sectors of the economy. Interfacing should resolve first of all the problems of improving the organization of settlements in the national economy. Computers are already used now in the ASU's of a number of economic agencies to draw up settlement documents. Information input on product shipments is used not only to draw up documents accompanying the goods and for accounting of settlements with customers, but also for official registration of settlements through the bank. Indices formed by machine are printed out in the form of payment demands and authorizations which are sent to Gosbank institutions. There they pass through the prescribed verification, are transferred to machine media (punchcards, paper tape) and put into Gosbank's computer at the center. The intermediate stages of document handling cause considerable outlays for labor and delays in payments. Therefore, organization of direct computer-to-computer communication between enterprise and bank computers is a problem of immediate interest. But such computer interface must be preceded by an enormous preparatory effort not only on organization of data transmission. Gosbank computers must be "taught" to analyze incoming documents, check them and, depending on the results of preliminary bank checking, submit them for payment, send them to other Gosbank computing centers, file them under unpaid documents or return them without execution.



The basis of machine checking is the economic information classification system which should be stored in computer memory. This means primarily the all-union classifier of payment transactions. Under this system, all payment transactions are classed according to economic category. For example, different codes (symbols) are assigned to payment transactions concerning enterprise operational activity and transactions concerning capital investments, budgetary payments, redistribution of resources and others. The all-union classifier of products makes it possible to check payments to see whether the commodity stocks being paid for correspond to the customer activity profile. Guided by the set of classifiers, Gosbank's computer will perform a number of bank verification functions while effecting settlements. But computer interface concerns not only payment transactions. A broad range of information concerning questions of credit for enterprises and organizations can be transmitted over communication channels. A classifier for monetary-credit transactions is being worked out for this purpose; the data required for planning and regulation of credit in an automated mode are included in it. Information on drafts of credit plans and, in certain set-ups, data for regulating loan liabilities and checking out security of loans will be sent over communication channels. Here the question arises of separating out of the entire mass of information that information which can be sent for processing without preliminary analysis by a bank economist. Such conditions of computer operation interface are possible if criteria for machine evaluation of incoming data are devised. For example, at the start of a quarter, bank economists may establish that for a particular enterprise which has been credited with production stocks, the level of stocks should be no more than 800,000 rubles, creditor liabilities--no more than 100,000 rubles, and the norm of its own working capital--250,000 rubles. Having received information to verify loan security, the computer will collate the actual data with the specified criteria and effect settlement of security verification if the specified limits are not exceeded. Otherwise, the array of information will be sent to the bank economist for preliminary analysis. Since credit regulation and security verification are more complicated operations than payments and done relatively less often in comparison to them, data from the credited enterprise's computer should be output not to Gosbank computing centers, but to minicomputers which it is advisable to install in Gosbank's local institutions.

Minicomputers can bring automated handling of the most labor-intensive tasks closer to the Gosbank staff and reduce the load on communication channels. After performing the task of regulating or verifying security of loans, minicomputers could transmit the results (issuance of loans on surplus of security or penalty of unsecured credit) to the computing center for posting to accounts.

Interaction of the various levels of the Gosbank ASU, i.e., of the computing centers of the oblast offices, with republic computing centers, and the latter with Gosbank's Main Computing Center on the one hand, and Gosbank computing centers with ministerial and departmental computer centers on the other, opens the prospect of expanding the information base for dialog between the bank and the sector supervisory agencies. This refers primarily

to increasing interaction in the matter of systematic control of credit. Basic information on execution of a credit plan is now transmitted from local Gosbank institutions to the center in the form of sectorial statistical reporting which enables comparing loan liabilities for a particular credit subject with the credit limit or check digit, as well as with indices for previous periods. After the comparison comes the problem of analysis, in particular, of the reasons for deviations of loan liabilities from the plan level. The analysis is performed in several stages. Primary analysis discloses deviations of actual data on balances of stocks being credited and outlays, on creditor liabilities and norms from the indices considered in the credit plan; secondary analysis discloses causes of deviations at a different degree of depth.

An interconnected network of Gosbank computing centers will enable the center to obtain the entire gamut of indices on credit subjects, i.e., data on credited stocks in storage or in transit, on creditor liabilities by types of their formation, and on norms. This information will enable automation of primary analysis of the execution of the credit plan. The computer can be entrusted with comparing actual indices with plans, determining absolute and relative deviations and printing out the data as tables according to programmed layouts.

The solution to the question of printing out the information must take into consideration capabilities of electronic computers which have immediate-access and read-only memory. While traditional calculator technology requires printing all information and storage of printed products, the electronic computer assumes preliminary machine analysis of the information and printing out, upon request by the economists, only the most important data, the so-called record indices, so that more detailed analysis may be focused on them. This does not preclude the possibility of printing out all information stored in the computer memory when necessary.

The question of the necessity of centralization of the functions of analysis of economic-financial activity of enterprises and associations has been raised again and again by Soviet academic and practical workers. After all, Gosplan, TsSU, Ministry of Finance, Gosbank, ministries and departments and other authorities are now engaged in analysis. Eliminating parallelism in this important manner will allow focusing efforts on more detailed analysis, while interfacing the computers of the operating control agencies will allow rapid transmission of study results by function. At the same time, it is hardly necessary to completely centralize analysis of all aspects of economic-financial activity in one department, for example the USSR TsSU. In our opinion, the state statistical agencies should systematically analyze the economic-financial activity of enterprises and associations, ministries and departments on questions of fulfillment of plans for production and sales, labor productivity, profits, status of working capital, and use of it according to target function so that other interested departments may receive the analysis results.

Division of labor should be organized among the departments on individual specific questions. In particular, primary machine analysis of the execution of credit plans should be performed by the USSR Gosbank's computing centers.

Machine analysis of credit plan execution must be more closely tied to analysis of fulfillment of the cash plan in various areas. For example, having the central apparatus of the Gosbank board and republic offices receive data not only on loan liabilities of trade organizations, but also on their commodity stocks and creditor liabilities by republic and oblast profile will permit making expeditious decisions on controlling credit and regulating settlements through the Ministry of Trade and consumer cooperative agencies. With time, the computer will become a reliable aid in solving the problem of determining the degree of credit "turning into cash."

It is known that when loans are granted only a very insignificant portion of them are in cash intended for payment of wages, procurement and other transactions. The great bulk of bank credit, having a non-cash form when originated, is partially redistributed in the national economy; the other share is converted into money on deposit in the accounts of the credit subjects or their contractors. Settling in budgetary and current accounts, credit subsequently to one extent or another is converted into cash. But it is practically impossible to track all connections of the loan granted with its subsequent conversion into cash in the territory of the country with a ramified economy. But even if it were possible to mark each loan and track its movement through all changes to the end, in this case too we would not receive an answer to the question of the degree of its "turning into cash." The fact is that a loan, turning into non-cash money, loses the nature of a loan in the current account of the credit recipient. An enterprise may to an equal extent obtain cash for payment of wages from the money created by credit or from a monetary reserve which existed earlier while the loan obtained will compensate for the expended monetary reserve. A similar process occurs with contractors of a credit recipient in those cases when the loan is used to pay the bills of suppliers and as a result has settled in a non-cash form in their current accounts.

At the same time, the percentage of credit converted into cash can be precisely determined by analyzing the structure of value of the credit subjects in sectors of the national economy. The percentage of outlays for wages, which is naturally different in different sectors, in each credit subject, in particular in production stocks, uncompleted production and finished products is known. For example, in extending credit for uncompleted production of plant-growing at sovkhozes, the bank knows the share of credit being used to pay wages; it is similar for other credit subjects. Therefore, a study is required to develop tables in which the credit subjects will be reflected in the predicate, the basic economic links of the various sectors--in the subject, and the percentage of outlays for wages in the credit subject--in the blocks at the intersection of the lines and

columns. A special table is required for calculation of "credit turning into cash" for cash and non-cash procurement transactions. The share of credit "turning into cash" which has taken part in the realization of net income should also be calculated.

With these tables, the status of money circulation as a function of the movement of credit can be confidently predicted; the forecasts can be used for closer interaction of Gosbank with ministries and departments to maintain the money in circulation within objectively required limits. This means that in cases of above-plan credit demand Gosbank will be capable of making better substantiated suggestions for increasing production of consumer goods and services for the population.

Intensifying the interaction of the USSR Gosbank's automated systems with the intersectorial and sectorial ASU's in the national economy will also promote raising the efficiency of control of payment transactions. While Gosbank institutions now provide personal account statements to enterprises and organizations, in future in addition to the statements the bank will be able to furnish economic agencies with their operational balances of payment transactions by economic transaction category, i.e., reflecting the primary channels of ebbs and flows of resources. Formation of balances of payment transactions by individual ministries and departments has also been suggested, and at the level of the Gosbank republic offices and the Board it is planned to obtain the matrix balance of payment transactions from the computer. Results of the accounting of the intersectorial payment relations in the national economy can be systematically sent to the USSR TsSU and the USSR Gosplan for more detailed analysis of the proportions formed over the course of carrying out the plan for the economic and social development of the USSR.

The task of ensuring interaction of the leading state-wide ASU's and primarily the USSR Gosplan's ASFR, the USSR Gosbank's ASU and the USSR TsSU's ASGS is receiving special attention from the positions of the problem of raising the efficiency of social production.<sup>4</sup>

The basic conditions for compatibility of the ASU's are agreement on types and methods of calculations of standard indicators used in each system and ensuring their comparability and unity; establishment of standard terminology for automated systems and standard information flows, types, volumes and forms of presentation of transmitted information; agreement on the periodicity and schedules for exchange of information; mutual coordination of technical tasks and projects.

The determining role in the development of the standard principles of design, introduction and interaction of the ASU's undoubtedly belongs to the USSR Gosplan's automated system of plan calculations which has been called upon to become the central link in the state-wide system for data acquisition and processing for accounting, planning and controlling the national economy.



The composition of plan indicators and standardized forms of documents combining the plan information and the procedure and sequence of increasing the level of automation of plan work, in particular, use of the automated or automatic mode of interaction is prescribed by the design solutions of the ASFR, based on its leading role, and must be considered in the design solutions of the systems interacting with it. Elaboration of ASU's in all phases of their creation and development is done through coordination of the system project documentation with the ASFR. Efficiency of design solutions in the area of planning tasks and subsystems is considered in accordance with ASFR requirements.

In resolving the questions of interaction with the USSR TsSU's ASGS, it should be kept in mind that stemming from the unity of the system of state statistics, the rules for management, acquisition and processing of information established by the TsSU should be binding on all other automated systems.

Concerning interaction with the USSR Ministry of Finance's ASFR, the necessity of resolving questions of interaction jointly with ASFR designers stems from Gosbank's role itself in carrying out the function of cash execution of the state budget.

Consequently, the design solutions used in the ASFR, ASGS and ASFR must be considered in the engineering of all aspects of Gosbank ASU interaction with these other major state-wide intersectorial ASU's.

How do matters stand with these solutions relative to interaction with the Gosbank ASU?

ASFR system specifications required methodological, informational, engineering and organizational compatibility of the ASFR with the ministerial and departmental CASU's. Within the framework of the first phase of the ASFR, accepted for operation in 1977, this problem had not been resolved; moreover CASU planning is being done apart from the work on the ASFR; this is leading to inconsistency in the composition of plan tasks on phases of introduction, in methods and in the informational, software and hardware facilities of their solution.<sup>5</sup> The main thrust of the effort on building the second phase of the ASFR lies in the transition from subsystems operating in a local mode to broad interaction, on one hand, between the different levels of the ASFR, and on the other, between the subsystems of the ASFR and the ministerial and departmental ASU's.<sup>6</sup>

To enhance the responsibility of the ministries and departments for ensuring efforts to make the ASFR compatible with sectorial and departmental ASU's, joint coordinated plans for resolving the specific questions of interaction of CASU plan subsystems with ASFR sectorial subsystems must be elaborated.<sup>7</sup>

Specifications for the second phase of the ASFR, scheduled for initial operation in 1980,<sup>8</sup> include continuation of the effort on building economic-mathematical models for the "Financial Balance" subsystem.

In the current five-year plan, the head organizations for the ASFR and the ASGS are working out interaction between them, but of the other state-wide systems, only interaction between the ASFR and the USSR Gosplan's State Committee for Material and Technical Supply is being developed. The head organization for the ASFR has also not yet worked out interaction of its subsystem for execution of the state budget with Gosbank's ASU.

Bearing in mind the broad range and considerable amount of future work on engineering the interaction of the Gosbank ASU with the ASFR, ASGS and ASFR, it seems that, not waiting for development of design solutions in this area by the head organizations of them, Gosbank should expedite maximum optimization of them in advance. It is high time to resolve the questions of coordination of efforts on engineering the interaction of the systems in their preliminary phase jointly with the head organizations--the developers of the ASFR, ASGS and ASFR. Both the appropriate subdivisions of the Gosbank's central apparatus and the Gosbank offices and their computing centers enlisted to work out individual questions of interaction can participate in this. It is advisable to engage in such preparatory work following the coordinating plans for each year, coordinated by Gosbank's GVTs Main Computing Center with the head organizations of the ASFR--the GVTs of the USSR Gosplan, the ASGS--the Glavmekhschet Main Administration of Mechanized Computation of the USSR TsSU and the ASFR--the GVTs of the USSR Minfin Ministry of Finance.

To prepare the methodological and information compatibility of the interacting systems, the following should be worked out: the necessary changes in the plan-analytic and reporting indices and forms of documentation used in the USSR Gosbank's interrelations with the USSR Gosplan, the USSR TsSU, the USSR Minfin and their local agencies; information coding procedures and use of one or another information classifiers for computer processing; and the composition and volume of information which the interacting systems must exchange at each of their levels, for subsequent coordination of considerations on all these questions with the design solutions of the ASFR, ASGS and ASFR.

Software compatibility will be expressed in the preferred use of unitized standard programs for methodologically uniform tasks and algorithmic languages in the interacting systems in all cases when this is possible and necessary. In coordinating plans for preparation for interaction, it is advisable to decide on exchange of programs, hold technical meetings between developers and take other measures to facilitate exchange of experience applicable to the programming phases.

Hardware compatibility between the Gosbank's ASU and the ASFR, ASGS and ASFR in future is assured in that development plans are based on using the unified series of computers.

Orientation to ensuring correspondence of information transmission and processing hardware capacity in subsystems being interfaced is necessary by contacts with developers of the interacting systems.

Technological compatibility of the systems requires developments for use in their various elements, depending on hardware used, of unified technology for performing the corresponding calculations with selection of the mode of interaction. Obviously, it is advisable to explore the possibility of converting from the automated mode of exchange of information on paper and machine media to the automatic exchange mode through devices for data transmission over communication channels. Of special interest are the studies in direct exchange of data between computer complexes of interacting systems by methods of the conversational mode of computer operation based on using automated data banks. Such studies are also undoubtedly necessary to raise the efficiency of banking operations, primarily by inter-center (VTs-VTs) exchange of information.

The task set by the 25th CPSU Congress to more fully combine the sectorial and territorial principles of planning requires extending the territorial aspect of planning personal income and expenditures and of credit planning. The interaction of the Gosbank's ASU with the ASFR and the ASGS in this planning will make it possible to avoid duplication in the processing of a large amount of information in the computing centers of the various systems.

At the oblast (ASSR, kray) and rayon (city) levels, computing centers and state statistical centers will be used as the ASFR hardware base to perform the necessary plan calculations and processing of economic information for plan agencies.<sup>9</sup> At the same time, overall mechanization and automation of accounting and reporting of enterprises and organizations at the VTs and IVS [information and computing systems] of the statistical agencies is expanding. They are performing computations on a contract basis for more than 87,000 enterprises and organizations.<sup>10</sup> Thus, the ASGS computing base concentrates an enormous amount of accounting-statistical and other economic information and will encompass a larger number of enterprises, organizations and institutions in future. Reporting information from the latter is also concentrated at ASGS computing centers which, as mentioned earlier, will moreover have all, without exception, the plan information for the economy of a rayon (city) or oblast (kray, ASSR) respectively.

Based on what has been stated, projects for Gosbank ASU interaction with the ASFR and ASGS should be oriented to using the plan and reporting information concentrated in the ASGS in calculating plan balances of personal income and expenditures, cash plans and credit plans.

It is advisable to develop procedures, jointly with the USSR Gosplan and the USSR TsSU, for processing information to calculate personal income and expenditures in territorial profiles at Gosbank OVTs [sectorial computing centers] and RVTs [republic computing centers] without drawing data from enterprises and organizations as is now done in Gosbank institutions. Information, output from Gosbank ASU computing centers, on cash transactions of bank institutions and savings banks can be processed at ASGS computing centers in conjunction with the reporting and plan information, accumulated at them, for programs to compile the reporting balance of

personal income and expenditures and then the plan balance of the plan, mutually coordinated with the indices, for economic and social development and the state budget for the rayon (city), oblast, kray or republic.

Similarly, procedures can be developed to use the reporting and plan information accumulated at the ASGS VTs to compile cash plans at Gosbank VTs without, in parallel with the ASGS, acquiring this information from enterprises, associations, organizations, ministries and departments.

Based on the experience of compilation of complete territorial credit plans for resources and their direction by some Gosbank republic offices, in the appropriate stages of designing the Gosbank ASU interaction with the ASFR and ASGS it is advisable to explore the possibility of using data accumulated at the ASGS VTs on the assets and liabilities and norms of credited economic agencies and on plans for supply of materials and equipment, production and sales or commodity turnover by associations, enterprises and organizations at Gosbank VTs for credit planning.

In light of the tasks set by the 25th CPSU Congress to raise the effectiveness of the financial-credit mechanism, an important aspect of the interaction of the Gosbank ASU is the intensification and enhancement of the expeditiousness of monitoring the economic-financial activity of economic agencies and the course of fulfillment of cash plans. If, as has been proposed, the state statistical agencies are charged with analyzing the reporting indices of associations and enterprises with the bank receiving the data on the analysis results from the ASGS computing centers and stations, bank institutions will have greater possibilities of intensifying the monitoring of economic agency operations in the process of extending credit and regulating the circulation of money by expanding on-site verifications at the associations and enterprises. Considering the ASGS computer base evolution, it is advisable to more accurately define the amount of analytic data which the Gosbank institutions can obtain through the state statistical VTs and stations for use in monitoring economy agency activity and fulfillment of cash plans in lieu of the bank acquiring reporting data for analysis directly from the enterprises and their superior agencies.

To raise the efficiency of Gosbank ASU interaction with the ASFR, it is necessary to study the possibility of eliminating the existing duplication of processing of information on cash fulfillment of the state budget in Gosbank institutions and financial agencies.

Thus, documents on receipts of union and republic budgets are processed in a budget classification profile for compilation of reporting being submitted to financial agencies. Then these documents are sent to the latter who process them again in a payer profile for their tax accounting. Documents on the income and expenditures of local budgets are processed at bank institutions in a budget profile for maintaining their current accounts, and then again at financial agencies and rural (settlement) soviets in the budget classification profile for monitoring the course of their fulfillment.



A task of no small importance in the Gosbank ASU interaction with the ASFR lies in intensifying the expeditiousness of monitoring the course of fulfillment of the state budget at all levels of the financial system. When devising algorithms and programs for the interacting subsystems of the ASU, special attention must be paid to maximizing analytic profiles for processing of information on budget income and expenditures and increasing the frequency of the periodicity of output of the corresponding data to the ASFR at the levels of all elements of both interacting systems. This means that formation of all reporting on cash fulfillment of the state budget to the ASFR by the analytic data output from the Gosbank ASU can, under the appropriate conditions, replace submission of existing Gosbank reporting both to local financial agencies and to the ministries of finance in the union republics and to the USSR Ministry of Finance. This will result in a considerable reduction in the existing labor-intensive work associated with processing and using information on fulfillment of the state budget in all elements of the financial and credit system.

#### FOOTNOTES

1. See "Materialy XXV s"yezda KPSS" [Materials of the 25th CPSU Congress], Moscow, Politizdat, 1976, p 174.
2. See EKONOMICHESKAYA GAZETA, 1978, No 22.
3. See DEN'GI I KREDIT, 1978, No 3, p 31.
4. See EKONOMICHESKAYA GAZETA, 1978, No 23, p 14.
5. See PLANOVCYE KHOZYAYSTVO, 1977, No 5, pp 3, 6-7.
6. See *ibid.*, pp 16-17.
7. See *ibid.*, p 47.
8. See *ibid.*, p 15.
9. See VESTNIK STATISTIKI, 1975, No 6, p 27.
10. See EKONOMICHESKAYA GAZETA, 1978, No 26, p 5.

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